Naperville

June 7, 2010

Illinois EPA
DWPC, Permit Section #15
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

SUBJECT: City of Naperville - Springbrook Water Reclamation Center
Request for Renewal of NPDES Permit #IL0034061

To Whom It May Concern:

We are submitting the completed application for the renewal of the Springbrook Water Reclamation Center's NPDES Permit #IL0034061. As per the instructions, one original and one copy of the applications 2A and 2S are being provided with original signatures.

For this permit renewal application, the City of Naperville is adding two new discharge locations. These locations are called South Operations Center, designed 002, and Water Service Center, designated 003. These facilities are major pump stations which collect and pump wastewater to the Springbrook Water Reclamation Center for treatment and discharge through our main discharge location, 001.

Both of these locations have wet weather storage lagoons which temporarily hold wastewater during high flow events until the collection system can regain capacity and pump the water to the treatment plant. Most of the time, these lagoons are dry and contain no wastewater. They are not designed for a controlled release of wastewater with valves or gates. There have been only three occasions where wastewater has flowed over the berm when the lagoons became full.

SUBJECT: City of Naperville - Springbrook Water Reclamation Center
Request for Renewal of NPDES Permit #IL0034061

If you have any questions or require any additional information, please do not hesitate to contact us at (630)420-6122.

Sincerely,

David A. Nykiel, P.E.
Operations Manager
Department of Public Utilities-Water/
Wastewater
Water Supply and Reclamation Division

James E. Holzapfel, P.E.
Director of Public Utilities-Water/
Wastewater

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Enclosures

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

F IL0034061 D

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill—in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold—faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a discharge to waters of the U.S.? (FORM 2A)	X		X
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		X	
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP SPRINGBROOK WATER RECLAMATION CENTER

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 NYKIEL, DAVID OPERATIONS MGR	630 420 6122

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX	B. CITY OR TOWN	C. STATE	D. ZIP CODE
3 400 SOUTH EAGLE ST PO BOX 3020	4 NAPERVILLE	IL	60566

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER	B. COUNTY NAME	C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
5 3712 PLAINFIELD/NAPERVILLE RD	WILL	6 NAPERVILLE	IL	60564	

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
4952 (specify) Sewerage Systems	(specify)
C. THIRD	**D. FOURTH**
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME: CITY OF NAPERVILLE

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)
F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC (other than federal or state); O = OTHER (specify)
M (specify)

D. PHONE (area code & no.)

E. STREET OR P.O. BOX: 400 SOUTH EAGLE ST, PO BOX 3020

F. CITY OR TOWN: NAPERVILLE

G. STATE: IL

H. ZIP CODE: 60566

IX. INDIAN LAND
Is the facility located on Indian lands? [ ] YES [X] NO

EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water): N IL0034061	**D. PSD** (Air Emissions from Proposed Sources): 9P
B. UIC (Underground Injection of Fluids): U	**E. OTHER** (specify): 9 2007-SC-5031 (specify) Land Application of Sewage Sludge
C. RCRA (Hazardous Wastes): R	**E. OTHER** (specify): 9 (specify)

X. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XI. NATURE OF BUSINESS (provide a brief description)

Springbrook Water Reclamation Center provides wastewater treatment for the cities of Naperville and Warrenville, which have only separate sewer collection systems. Treatment consists of preliminary treatment by mechanical bar screening followed by aerated grit removal. This is followed by conventional activated sludge biological treatment in aeration tanks, including single stage nitrification. Clarification follows in gravity settling tanks. Clarified effluent then passes through underground sand filters for tertiary treatment. Final effluent disinfection occurs May through October, using sodium hypochlorite for chlorination and sodium bisulfite for dechlorination. Waste sludge from the activated sludge process is thickened prior to aerobic digestion. After digestion, sludge is conditioned with polymer and dewatered by centrifuges. Dewatered sludge/ biosolids cake is disposed of by contract hauling to agricultural land application in accordance with calculated agronomic rates for beneficial reuse.

XII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
JAMES E. HOLZAPFEL, P.E. DIRECTOR OF PUBLIC UTILITIES-WATER/WW	James E. Holzapfel	6/7/2010

COMMENTS FOR OFFICIAL USE ONLY

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

Form Approved 1/14/99
OMB Number 2040-0086

FORM 2A NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.

B. **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.

C. **Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to provide the information.

E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to submit results of toxicity testing.

F. **Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:

1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
2. Any other industrial user that:
   a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
   b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
   c. Is designated as an SIU by the control authority.

G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name: Springbrook Water Reclamation Center

Mailing Address: 400 S. Eagle St., P.O. Box 3020
Naperville, Illinois 60566-7020

Contact person: David A. Nykiel, P.E.

Title: Operations Manager

Telephone number: (630)420-6122

Facility Address: 3712 Plainfield/Naperville Road

(not P.O. Box): Naperville, Illinois 60564-4170

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name: City of Naperville

Mailing Address: 400 S. Eagle St., P.O. Box 3020
Naperville, Illinois 60566-7020

Contact person: James E. Holzapfel, P.E.

Title: Director of Public Utilities-Water/Wastewater

Telephone number: (630)420-6131

Is the applicant the owner or operator (or both) of the treatment works?

X owner X operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

_____ facility X applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES IL0034061
UIC
RCRA
PSD
Other 2007-SC-5031 (Land Application of Sewage Sludge)
Other

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Naperville	145,000	Separate	Municipal
Warrenville	11,000	Separate	Municipal

Total population served 156,000

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes ___X___ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes ___X___ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 26.25 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	21.62	24.47	22.15	mgd
c. Maximum daily flow rate	47.20	65.66	47.57	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

_____ Separate sanitary sewer 100 %

_____ Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ___X___ Yes _____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1
ii. Discharges of untreated or partially treated effluent 0
iii. Combined sewer overflow points 0
iv. Constructed emergency overflows (prior to the headworks) 2
v. Other _____ 0

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? _____ Yes ___X___ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

c. Does the treatment works land-apply treated wastewater? _____ Yes ___X___ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? _____ Yes ___X___ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

_____

If transport is by a party other than the applicant, provide:

Transporter name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

For each treatment works that receives this discharge, provide the following:

Name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? _____ Yes ___X___ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

_____

Annual daily volume disposed of by this method: _____

Is disposal through this method _____ continuous or _____ intermittent?

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a,** go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number 001

b. Location
Naperville (City or town, if applicable) 60564-4170 (Zip Code)
Will (County) Illinois (State)
41 deg. 42 min. 0 sec. (Latitude) 88 deg. 9 min. 48 sec. (Longitude)

c. Distance from shore (if applicable) N/A ft.

d. Depth below surface (if applicable) N/A ft.

e. Average daily flow rate 22.15 mgd

f. Does this outfall have either an intermittent or a periodic discharge? ____ Yes X No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: ____

Average duration of each discharge: ____

Average flow per discharge: ____ mgd

Months in which discharge occurs: ____

g. Is outfall equipped with a diffuser? ____ Yes X No

A.10. Description of Receiving Waters.

a. Name of receiving water DuPage River

b. Name of watershed (if known) Des Plaines Watershed

United States Soil Conservation Service 14-digit watershed code (if known): ____

c. Name of State Management/River Basin (if known): Upper Illinois River Basin

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 07120004

d. Critical low flow of receiving stream (if applicable):
acute N/A cfs chronic N/A cfs

e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of $CaCO_3$

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

X Primary X Secondary
X Advanced _____ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal	95 %
Design SS removal	95 %
Design P removal	N/A %
Design N removal	80 %
Other _____	N/A %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.
May through October, chlorination using sodium hypochlorite, dechlorination using sodium bisulfite

If disinfection is by chlorination, is dechlorination used for this outfall? X Yes _____ No

d. Does the treatment plant have post aeration? _____ Yes X No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.8	s.u.	6.8	s.u.	1,095
pH (Maximum)	7.8	s.u.	7.8	s.u.	1,095
Flow Rate	65.66	MGD	22.75	MGD	1,095
Temperature (Winter)	63.20	degrees °F	55.92	degrees °F	23
Temperature (Summer)	72.18	degrees °F	63.20	degrees °F	20

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5							
	CBOD-5	15	mg/L	2	mg/L	471	SM 5210B	1
FECAL COLIFORM		589	cfu/100ml	43	cfu/100ml	238	SM 9222D	1
TOTAL SUSPENDED SOLIDS (TSS)		51	mg/L	2	mg/L	471	SM 2540D	0.2

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

Form Approved 1/14/99
OMB Number 2040-0086

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number 002

b. Location

Naperville	60540
(City or town, if applicable)	(Zip Code)
DuPage	Illinois
(County)	(State)
41 deg. 44 min 4 sec. N	88 deg. 7 min. 38 sec. W
(Latitude)	(Longitude)

c. Distance from shore (if applicable) N/A ft.

d. Depth below surface (if applicable) N/A ft.

e. Average daily flow rate 0 mgd

f. Does this outfall have either an intermittent or a periodic discharge? X Yes ____ No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: 0 to 1

Average duration of each discharge: 03/08/09 for 12 hrs., 12/27/08 for 33 hrs.

Average flow per discharge: 11.88 mgd

Months in which discharge occurs: March, December

g. Is outfall equipped with a diffuser? ____ Yes X No

A.10. Description of Receiving Waters.

a. Name of receiving water West Branch, DuPage River

b. Name of watershed (if known) Des Plaines Watershed

United States Soil Conservation Service 14-digit watershed code (if known): ____

c. Name of State Management/River Basin (if known): Upper Illinois River Basin

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 07120004

d. Critical low flow of receiving stream (if applicable):

acute N/A cfs chronic N/A cfs

e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of $CaCO_3$

Form Approved 1/14/99
OMB Number 2040-0086

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

_____ Primary _____ Secondary

_____ Advanced ___X___ Other. Describe: Not designed for treatment

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal	N/A	%
Design SS removal	N/A	%
Design P removal	N/A	%
Design N removal	N/A	%
Other _____		%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

N/A

If disinfection is by chlorination, is dechlorination used for this outfall? _____ Yes _____ No

d. Does the treatment plant have post aeration? _____ Yes _____ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 002

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.5	s.u.	7.5	s.u.	1
pH (Maximum)	7.5	s.u.	7.5	s.u.	1
Flow Rate	17.4	MGD	0	MGD	1
Temperature (Winter)					
Temperature (Summer)					

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5	25	mg/L	25	mg/L	1	SM 5201B	1
	CBOD-5	20	mg/L	20	mg/L	1	SM 5201B	1
FECAL COLIFORM								
TOTAL SUSPENDED SOLIDS (TSS)		47.0	mg/L	40	mg/L	2	SM 2540D	0.2

END OF PART A.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

Form Approved 1/14/99
OMB Number 2040-0086

WASTEWATER DISCHARGES

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B - Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd.

A.9. Description of Outfall.

a. Outfall number 003

b. Location
Naperville (City or town, if applicable) 60563 (Zip Code)
DuPage (County) Illinois (State)
41 deg. 46 min. 54 sec. N (Latitude) 88 deg. 10 min. 26 sec. W (Longitude)

c. Distance from shore (if applicable) N/A ft.

d. Depth below surface (if applicable) N/A ft.

e. Average daily flow rate 0 mgd

f. Does this outfall have either an intermittent or a periodic discharge? X Yes ____ No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: 0 to 1

Average duration of each discharge: 09/14/08 for 4 hrs.

Average flow per discharge: 1.32 mgd

Months in which discharge occurs: September

g. Is outfall equipped with a diffuser? ____ Yes X No

A.10. Description of Receiving Waters.

a. Name of receiving water West Branch, DuPage River

b. Name of watershed (if known) Des Plaines Watershed

United States Soil Conservation Service 14-digit watershed code (if known): ____

c. Name of State Management/River Basin (if known): Upper Illinois River Basin

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 07120004

d. Critical low flow of receiving stream (if applicable):
acute N/A cfs chronic N/A cfs

e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of $CaCO_3$

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

Form Approved 1/14/99
OMB Number 2040-0086

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

_____ Primary _____ Secondary

_____ Advanced ___X___ Other. Describe: Not designed for treatment

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal	N/A	%
Design SS removal	N/A	%
Design P removal	N/A	%
Design N removal		%
Other _____		%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

N/A

If disinfection is by chlorination, is dechlorination used for this outfall? _____ Yes _____ No

d. Does the treatment plant have post aeration? _____ Yes _____ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 003

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.2	s.u.	7.2	s.u.	1
pH (Maximum)	7.2	s.u.	7.2	s.u.	1
Flow Rate	1.32	MGD	0	MGD	1
Temperature (Winter)					
Temperature (Summer)					

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5	19	mg/L	19	mg/L	1	SM 5201B	1
	CBOD-5	15	mg/L	15	mg/L	1	SM 5201B	1
FECAL COLIFORM		719,000	cfu/100ml	719,000	cfu/100ml	1	SM 9222D	1
TOTAL SUSPENDED SOLIDS (TSS)		80.5	mg/L	80.5	mg/L	1	SM 2540D	0.2

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

B.3. Narrative of Water Balance

At the Springbrook Water Reclamation Center, there is only one discharge point, 001. The influent flow, Q_{INF}, and effluent flow, Q_{EF}, of the facility are equal as no water is stored on site. The average flow for the past twelve months was 22.15 MGD. The aeration tanks receive a hydraulic load of both Q_{INF} and the difference between the Return Activated Sludge Flow, Q_{RAS}, and the Waste Activated Sludge Flow, Q_{WAS}. The Q_{RAS} is typically 45% to 55% of the influent flow but varies based on clarifier performance, storm events, and changes to the MCRT. Likewise, these changes affect the Q_{WAS} which varies between 0.50 MGD and 0.79 MGD. The flow from the clarifiers to the sand filters and disinfection tanks are equal to Q_{INF}.

Q_{INF} = 22.15 MGD

Q_{RAS} = 45% to55% Q_{INF}

Q_{WAS} = 0.50 to 0.79 MGD

$Q_{EFF} = Q_{INF}$

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

5,500,000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

The City of Naperville has pursued an aggressive sanitary lining program for the past 8 years, having lined interceptors, trunk sewers and laterals. Sanitary sewer lining efforts are planned to continue for the next 5 years.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g, chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).
Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? _____ Yes __X__ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

_____

Telephone Number: _____

Responsibilities of Contractor: _____

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.
N/A

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.
_____ Yes _____ No

c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

_____

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM/DD/YYYY	Actual Completion MM/DD/YYYY
- Begin construction		
- End construction		
- Begin discharge		
- Attain operational level		

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? _____ Yes _____ No

Describe briefly: _____

_____

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: _____

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)	1.8	mg/L	0.3	mg/L	471	SM 4500-NH3D	0.1
CHLORINE (TOTAL RESIDUAL, TRC)	0.07	mg/L	LT 0.05	mg/L	246	SM 4500-CLD	0.05
DISSOLVED OXYGEN	11.6	mg/L	8.3	mg/L	474	SM 4500-O G	0.1
TOTAL KJELDAHL NITROGEN (TKN)	N/A						
NITRATE PLUS NITRITE NITROGEN	N/A						
OIL and GREASE	LT 1	mg/L	LT 1	mg/L	2	1664A	1
PHOSPHORUS (Total)	5.00	mg/L	3.19	mg/L	43	SM 4500-P E	0.01
TOTAL DISSOLVED SOLIDS (TDS)	N/A						
OTHER	N/A						

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

__X__ Basic Application Information packet

Supplemental Application Information packet:

__X__ Part D (Expanded Effluent Testing Data)

__X__ Part E (Toxicity Testing: Biomonitoring Data)

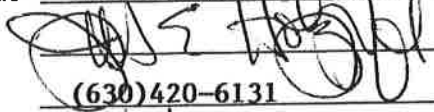
__X__ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

_____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: James E. Holzapfel, P.E. Director of Public Utilities-Water/Wastewater

Signature: 

Telephone number: (630)420-6131

Date signed: 6/7/10

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD**	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	N/A										
ARSENIC	LT 0.002	mg/L			LT 0.002	mg/L			2	200.7R4.4	0.002
BERYLLIUM	N/A										
CADMIUM	LT 0.001	mg/L			LT 0.001	mg/L			2	200.7R4.4	0.001
CHROMIUM	LT 0.001	mg/L			LT 0.001	mg/L			2	200.7R4.4	0.001
COPPER	0.004	mg/L			0.0035	mg/L			2	200.7R4.4	0.001
LEAD	LT 0.002	mg/L			LT 0.002	mg/L			2	200.7R4.4	0.002
MERCURY	2.0	ng/L			1.52	mg/L			2	1631E	0.5
NICKEL	0.001	mg/L			0.001	mg/L			2	200.7R4.4	0.001
SELENIUM	LT 0.002	mg/L			LT 0.002	mg/L			2	200.7R4.4	0.002
SILVER	LT 0.001	mg/L			LT 0.001	mg/L			2	200.7R4.4	0.001
THALLIUM	N/A										
ZINC	0.030	mg/L			0.027	mg/L			2	200.7R4.4	0.005
CYANIDE, TOTAL	LT 0.005	mg/L			LT 0.005	mg/L			2	4500CN,C,E	0.005
TOTAL PHENOLIC COMPOUNDS*	LT 0.010	mg/L			LT 0.010	mg/L			2	9066	0.010
HARDNESS (AS $CaCO_3$)	N/A										
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											
IRON, DISSOLVED	0.05	mg/L			0.03	mg/L			2	200.7R4.4	0.01
FLUORIDE	0.76	mg/L			0.70	mg/L			2	4500F,C	0.50

The second sample used method 420.4R1.0. The detection limit was LT 0.005.
The result of the sample was LT 0.005.
Parameters that used method 200.7R4.4 for the first sample used method 200.8R5.4

FACILITY NAME AND PERMIT NUMBER:
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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
N/A	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN											
ACRYLONITRILE											
BENZENE											
BROMOFORM											
CARBON TETRACHLORIDE											
CLOROBENZENE											
CHLORODIBROMO-METHANE											
CHLOROETHANE											
2-CHLORO-ETHYLVINYL ETHER											
CHLOROFORM											
DICHLOROBROMO-METHANE											
1,1-DICHLOROETHANE											
1,2-DICHLOROETHANE											
TRANS-1,2-DICHLORO-ETHYLENE											
1,1-DICHLOROETHYLENE											
1,2-DICHLOROPROPANE											
1,3-DICHLORO-PROPYLENE											
ETHYLBENZENE											
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE											
1,1,2,2-TETRACHLORO-ETHANE											
TETRACHLORO-ETHYLENE											
TOLUENE											

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT N/A	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE											
1,1,2-TRICHLOROETHANE											
TRICHLORETHYLENE											
VINYL CHLORIDE											
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL											
2-CHLOROPHENOL											
2,4-DICHLOROPHENOL											
2,4-DIMETHYLPHENOL											
4,6-DINITRO-O-CRESOL											
2,4-DINITROPHENOL											
2-NITROPHENOL											
4-NITROPHENOL											
PENTACHLOROPHENOL											
PHENOL											
2,4,6-TRICHLOROPHENOL											
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE											
ACENAPHTHYLENE											
ANTHRACENE											
BENZIDINE											
BENZO(A)ANTHRACENE											
BENZO(A)PYRENE											

FACILITY NAME AND PERMIT NUMBER:
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NPDES Permit No. IL034061

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT N/A	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE											
BENZO(GHI)PERYLENE											
BENZO(K)FLUORANTHENE											
BIS (2-CHLOROETHOXY) METHANE											
BIS (2-CHLOROETHYL)-ETHER											
BIS (2-CHLOROISO-PROPYL) ETHER											
BIS (2-ETHYLHEXYL) PHTHALATE											
4-BROMOPHENYL PHENYL ETHER											
BUTYL BENZYL PHTHALATE											
2-CHLORONAPHTHALENE											
4-CHLORPHENYL PHENYL ETHER											
CHRYSENE											
DI-N-BUTYL PHTHALATE											
DI-N-OCTYL PHTHALATE											
DIBENZO(A,H) ANTHRACENE											
1,2-DICHLOROBENZENE											
1,3-DICHLOROBENZENE											
1,4-DICHLOROBENZENE											
3,3-DICHLOROBENZIDINE											
DIETHYL PHTHALATE											
DIMETHYL PHTHALATE											
2,4-DINITROTOLUENE											
2,6-DINITROTOLUENE											
1,2-DIPHENYLHYDRAZINE											

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT N/A	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE											
FLUORENE											
HEXACHLOROBENZENE											
HEXACHLOROBUTADIENE											
HEXACHLOROCYCLO-PENTADIENE											
HEXACHLOROETHANE											
INDENO(1,2,3-CD)PYRENE											
ISOPHORONE											
NAPHTHALENE											
NITROBENZENE											
N-NITROSODI-N-PROPYLAMINE											
N-NITROSODI- METHYLAMINE											
N-NITROSODI-PHENYLAMINE											
PHENANTHRENE											
PYRENE											
1,2,4-TRICHLOROBENZENE											
Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.											
Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.											

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

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SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

See attached Appendix A.

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E; you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using altemate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.
Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.
_____ chronic _____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: _____ Test number: _____ Test number: _____

a. Test information.			
Test species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			
b. Give toxicity test methods followed.			
Manual title			
Edition number and year of publication			
Page number(s)			
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.			
24-Hour composite			
Grab			
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)			
Before disinfection			
After disinfection			
After dechlorination			

	Test number: _____	Test number: _____	Test number: _____
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:			
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity			
Acute toxicity			
g. Provide the type of test performed.			
Static			
Static-renewal			
Flow-through			
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water			
Receiving water			
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water			
Salt water			
j. Give the percentage effluent used for all concentrations in the test series.			
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH			
Salinity			
Temperature			
Ammonia			
Dissolved oxygen			
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

Chronic:			
NOEC	%	%	%
IC_{25}	%	%	%
Control percent survival	%	%	%
Other (describe)			

m. Quality Control/Quality Assurance.			
Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

_____ Yes _____ No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: 05/28/09, 08/25/09, 11/17/09, 02/23/10 (MM/DD/YYYY)

Summary of results: (see instructions)

See attached reports (Appendix A).

END OF PART E.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

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SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

____ Yes X No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 3

b. Number of CIUs. ____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Nalco Chemical Corporation & Technical Center

Mailing Address: One Nalco Center, 1601 Diehl Road
Naperville, IL 60563

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Chemical Research, Testing of Inorganic and Organic Chemicals

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Chemical Research, Laboratory Testing

Raw material(s): Inorganic and Organic Chemicals

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

2,500 gpd (X continuous or ____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

1,500 gpd (X continuous or ____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local Limits X Yes ____ No

b. Categorical pretreatment standards ____ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

____

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

_____ Yes __X__ No If yes, describe each episode:

_____

_____

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? _____ Yes __X__ No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

_____ Truck _____ Rail _____ Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

_____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

_____

_____

_____

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

_____

_____

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

_____ Yes _____ No

If yes, describe the treatment (provide information about the removal efficiency):

_____

_____

b. Is the discharge (or will the discharge be) continuous or intermittent?

_____ Continuous _____ Intermittent If intermittent, describe discharge schedule.

_____

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G. N/A

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

a. All CSO discharge points.

b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).

c. Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1. or on a separate drawing, of the combined sewer collection system that includes the following information:

a. Locations of major sewer trunk lines, both combined and separate sanitary.

b. Locations of points where separate sanitary sewers feed into the combined sewer system.

c. Locations of in-line and off-line storage structures.

d. Locations of flow-regulating devices.

e. Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3. Description of Outfall.

a. Outfall number _____

b. Location _____
(City or town, if applicable) (Zip Code)

_____
(County) (State)

_____
(Latitude) (Longitude)

c. Distance from shore (if applicable) _____ ft.

d. Depth below surface (if applicable) _____ ft.

e. Which of the following were monitored during the last year for this CSO?

_____ Rainfall _____ CSO pollutant concentrations _____ CSO frequency
_____ CSO flow volume _____ Receiving water quality

f. How many storm events were monitored during the last year? _____

G.4. CSO Events.

a. Give the number of CSO events in the last year.
_____ events (_____ actual or _____ approx.)

b. Give the average duration per CSO event.
_____ hours (_____ actual or _____ approx.)

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SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

_____ Yes X No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 3

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Kraft Foods

Mailing Address: 1555 West Ogden Avenue
Naperville, IL 60540

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Production of snack crackers.

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Fiber/wheat (Triscuits)

Raw material(s): Wheat

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

54,112 gpd (___ continuous or X intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

5,140 gpd (___ continuous or X intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local Limits X Yes ___ No

b. Categorical pretreatment standards ___ Yes X No

If subject to categorical pretreatment standards, which category and subcategory?

_____

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

__X__ Yes _____ No If yes, describe each episode:

Bulking, increased SVI

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? _____ Yes __X__ No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

_____ Truck _____ Rail _____ Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

_____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

_____ Yes _____ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

_____ Continuous _____ Intermittent If intermittent, describe discharge schedule.

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

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SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

_____ Yes __X__ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 3

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: BP Amoco Corporation

Mailing Address: 150 West Warrenville Road
Naperville, IL 60563

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Pilot plant testing/batch production for commercial research.

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Commercial, Physical, Chemical and Biological Products of Research

Raw material(s): Petroleum, Inorganic and Organic Chemicals

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

70,000 gpd (X continuous or ___ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

20,600 gpd (X continuous or ___ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local Limits __X__ Yes ___ No

b. Categorical pretreatment standards ___ Yes __X__ No

If subject to categorical pretreatment standards, which category and subcategory?

_____

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

_____ Yes __X__ No If yes, describe each episode:

_____

_____

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? _____ Yes __X__ No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

_____ Truck _____ Rail _____ Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

_____ Yes (complete F.13 through F.15.) __X__ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

_____

_____

_____

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

_____

_____

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

_____ Yes _____ No

If yes, describe the treatment (provide information about the removal efficiency):

_____

_____

b. Is the discharge (or will the discharge be) continuous or intermittent?

_____ Continuous _____ Intermittent If intermittent, describe discharge schedule.

_____

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

c. Give the average volume per CSO event.

_____ million gallons (____ actual or ____ approx.)

d. Give the minimum rainfall that caused a CSO event in the last year.

_____ inches of rainfall

G.5. Description of Receiving Waters.

a. Name of receiving water: _____

b. Name of watershed/river/stream system: _____

United States Soil Conservation Service 14-digit watershed code (if known): _____

c. Name of State Management/River Basin: _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

G.6. CSO Operations.

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

_____

_____

END OF PART G.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

Illinois Environmental Protection Agency
Bureau of Water, Division of Water Pollution Control, Permit Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Form Approved 1/14/99
OMB Number 2040-0086

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

FORM 2S NPDES

NPDES FORM 2S APPLICATION OVERVIEW

PRELIMINARY INFORMATION

This page is designed to indicate whether the applicant is to complete Part 1 or Part 2. Review each category, and then complete Part 1 or Part 2, as indicated. For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

FACILITIES INCLUDED IN ANY OF THE FOLLOWING CATEGORIES MUST COMPLETE PART 2 (PERMIT APPLICATION INFORMATION).

1. Facilities with a currently effective NPDES permit.

2. Facilities which have been directed by the permitting authority to submit a full permit application at this time.

ALL OTHER FACILITIES MUST COMPLETE PART 1 (LIMITED BACKGROUND INFORMATION).

Information required by this form must be provided to comply with 415 ILCS 5/39 (1998). Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

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Springbrook Water Reclamation Center
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PART 1 LIMITED BACKGROUND INFORMATION

This part should be completed only by "sludge-only" facilities - that is, facilities that do not currently have, and are not applying for, an NPDES permit for a direct discharge to a surface body of water.

For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

1. Facility Information.

a. Facility name N/A

b. Mailing Address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Facility Address (not P.O. B ox) _____

_____

e. Indicate the type of facility

_____ Publicly owned treatment works (POTW) _____ Privately owned treatment works

_____ Federally owned treatment works _____ Blending or treatment operation

_____ Surface disposal site _____ Sewage sludge incinerator

_____ Other (describe) _____

2. Applicant Information.

a. Applicant name N/A

b. Mailing Address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Is the applicant the owner or operator (or both) of this facility?

_____ owner _____ operator

e. Should correspondence regarding this permit be directed to the facility or the applicant?

_____ facility _____ applicant

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
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3. **Sewage Sludge Amount.** Provide the total dry metric tons per latest 365 day period of sewage sludge handled under the following practices:

a. Amount generated at the facility N/A _____ dry metric tons
b. Amount received from off site _____ dry metric tons
c. Amount treated or blended on site _____ dry metric tons
d. Amount sold or given away in a bag or other container for application to the land _____ dry metric tons
e. Amount of bulk sewage sludge shipped off site for treatment or blending _____ dry metric tons
f. Amount applied to the land in bulk form _____ dry metric tons
g. Amount placed on a surface disposal site _____ dry metric tons
h. Amount fired in a sewage sludge incinerator _____ dry metric tons
i. Amount sent to a municipal solid waste landfill _____ dry metric tons
j. Amount used or disposed by another practice _____ dry metric tons
Describe _____

4. **Pollutant Concentrations.** Using the table below or a separate attachment, provide existing sewage sludge monitoring data for the pollutants for which limits in sewage sludge have been established in 40 CFR part 503 for this facility's expected use or disposal practices. If available, base data on three or more samples taken at least one month apart and no more than four and one-half years old. N/A

POLLUTANT	CONCENTRATION (mg/kg dry weight)	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
ARSENIC			
CADMIUM			
CHROMIUM			
COPPER			
LEAD			
MERCURY			
MOLYBDENUM			
NICKEL			
SELENIUM			
ZINC			

5. **Treatment Provided At Your Facility.** N/A

a. Which class of pathogen reduction does the sewage sludge meet at your facility?

_____ Class A _____ Class B _____ Neither or unknown

b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:

_____

_____

_____

_____

_____

c. Which vector attraction reduction option is met for the sewage sludge at your facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ Option 9 (Injection below land surface)
_____ Option 10 (Incorporation into soil within 6 hours)
_____ Option 11 (Covering active sewage sludge unit daily)
_____ None or unknown

d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:

_____

_____

6. **Sewage Sludge Sent to Other Facilities.** Does the sewage sludge from your facility meet the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements, and one of the vector attraction options 1-8?
_____ Yes _____ No N/A

If yes, go to question 8 (Certification).

If no, is sewage sludge from your facility provided to another facility for treatment, distribution, use, or disposal?
_____ Yes _____ No

If no, go to question 7 (Use and Disposal Sites).

If yes, provide the following information for the facility receiving the sewage sludge:

a. Facility name _____

b. Mailing address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Which activities does the receiving facility provide? (Check all that apply)

_____ Treatment or blending
_____ Land application
_____ Incineration
_____ Sale or give-away in bag or other container
_____ Surface disposal
_____ Other (describe):

_____

_____

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7. **Use and Disposal Sites.** Provide the following information for each site on which sewage sludge from this facility is used or disposed:

a. Site name or number N/A

b. Contact person _____

Title _____

Telephone _____

c. Site location (Complete 1 or 2)

1. Street or Route # _____

County _____

City or Town _____ State _____ Zip _____

2. Latitude _____ Longitude _____

d. Site type (Check all that apply)

____ Agricultural ____ Lawn or home garden ____ Forest
____ Surface disposal ____ Public Contact ____ Incineration
____ Reclamation ____ Municipal Solid Waste Landfill ____ Other (describe): _____

8. **Certification.** Sign the certification statement below. (Refer to instructions to determine who is an officer for purposes of this certification.)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title N/A

Signature _____

Telephone number _____

Date signed _____

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

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PART 2. PERMIT APPLICATION INFORMATION

Complete this part if you have an effective NPDES permit or have been directed by the permitting authority to submit a full permit application at this time. In other words, complete this part if your facility has, or is applying for, an NPDES permit.

For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

APPLICATION OVERVIEW — SEWAGE SLUDGE USE OR DISPOSAL INFORMATION

Part 2 is divided into five sections (A-E). Section A pertains to all applicants. The applicability of Sections B, C, D, and E depends on your facility's sewage sludge use or disposal practices. The information provided on this page indicates which sections of Part 2 to fill out.

1. **SECTION A: GENERAL INFORMATION.**

   Section A must be completed by all applicants

2. **SECTION B: GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE.**

   Section B must be completed by applicants who either:

   1) Generate sewage sludge, or

   2) Derive a material from sewage sludge.

3. **SECTION C: LAND APPLICATION OF BULK SEWAGE SLUDGE.**

   Section C must be completed by applicants who either:

   1) Apply sewage to the land, or

   2) Generate sewage sludge which is applied to the land by others.

   NOTE: Applicants who meet either or both of the two above criteria are exempted from this requirement if all sewage sludge from their facility falls into one of the following three categories:

   1) The sewage sludge from this facility meets the ceiling and pollutant concentrations, Class A pathogen reduction requirements, and one of vector attraction reduction options 1-8, as identified in the instructions, or
   2) The sewage sludge from this facility is placed in a bag or other container for sale or give-away for application to the land, or
   3) The sewage sludge from this facility is sent to another facility for treatment or blending.

4. **SECTION D: SURFACE DISPOSAL**

   Section D must be completed by applicants who own or operate a surface disposal site.

5. **SECTION E: INCINERATION**

   Section E must be completed by applicants who own or operate a sewage sludge incinerator.

A.6

Sewage Sludge Narrative:

Waste Activate Sludge is taken from the process and pumped into a Walker Process Gravity Thickener. The thickened waste activated sludge is then pumped into one of six aerobic digesters. As the sludge digests, it is thickened by two Komline-Sanderson Gravity Belt Thickeners and returned to digestion for additional volatile solids reduction. The digesters are also cycled between aerobic and anoxic phases to increase digestion and to recover alkalinity.

After digestion, the solids are transferred to a holding tank and later dewatered to approximately 21% cake using two Humbolt Centrifuges. The cake is then stored in a 120'X360' enclosed biosolids storage building until it is ready to be hauled away to farm fields for beneficial reuse.

The process produces Class B biosolids. Vector attraction reduction is accomplished by calculating a minimum of 38% volatile solids reduction. Pathogen reduction is proven by calculating the geometric mean of *fecal coliform* for seven samples taken over a two week period. The attached schematic can provide further details on the flow of sludge and biosolids throughout the facility.

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
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A. GENERAL INFORMATION

All applicants must complete this section.

A.1. Facility Information.

a. Facility name: Springbrook Water Reclamation Center

b. Mailing Address: 400 South Eagle Street, P.O. Box 3020
Naperville, Illinois 60566-7020

c. Contact person: David A. Nykiel, P.E.
Title: Operations Manager
Telephone number: (630)420-6122

d. Facility Address (not P.O. Box): 3712 Plainfield/Naperville Road
Naperville, Illinois 60564-4170

e. Is this facility a Class I sludge management facility? X Yes ____ No

f. Facility design flow rate: 26.25 mgd

g. Total population served: 156,000

h. Indicate the type of facility:

X Publicly owned treatment works (POTW) ____ Privately owned treatment works
____ Federally owned treatment works ____ Blending or treatment operation
____ Surface disposal site ____ Sewage sludge incinerator
____ Other (describe)

A.2. Applicant Information. If the applicant is different from the above, provide the following:

a. Applicant name: City of Naperville

b. Mailing Address: 400 South Eagle Street, P.O. Box 3020
Naperville, Illinois 60566-7020

c. Contact person: James E. Holzapfel, P.E.
Title: Director of Public Utilities-Water/Wastewater
Telephone number: (630)420-6131

d. Is the applicant the owner or operator (or both) of this facility?

X owner X operator

e. Should correspondence regarding this permit should be directed to the facility or the applicant.

____ facility X applicant

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

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A.3. Permit Information.

a. Facility's NPDES permit number (if applicable): NPDES Permit No. IL0034061

b. List, on this form or an attachment, all other Federal, State, and local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

Permit Number	Type of Permit
2007-SC-5031	IEPA - Land Application of Sewage Sludge
2007-SC-5031-1	Change in Monitoring Frequency

A.4. Indian Country. Does any generation, treatment, storage, application to land, or disposal of sewage sludge from this facility occur in Indian Country?

_____Yes __X__No If yes, describe: _____

A.5. Topographic Map. Provide a topographic map or maps (or other appropriate map(s) if a topographic map is unavailable) that show the following information. Map(s) should include the area one mile beyond all property boundaries of the facility:

a. Location of all sewage sludge management facilities, including locations where sewage sludge is stored, treated, or disposed.

b. Location of all wells, springs, and other surface water bodies, listed in public records or otherwise known to the applicant within 1/4 mile of the facility property boundaries.

A.6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit, including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

A.7. Contractor Information.

Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? __X__Yes _____No

If yes, provide the following for each contractor (attach additional pages if necessary):

a. Name: Stewart Spreading

b. Mailing Address: 3870 N. Route 71
Sheridan, IL 60551

c. Telephone Number: (815)695-5667

d. Responsibilities of contractor: Locate application fields, calculate agronomics, haul sludge to fields, land apply sludge

Note: New contract is with Synagro, effective 05/01/10-04/30/12
1250 Larkin Avenue, Suite 10
Elgin, IL 60123
(847)695-5947

Also, some sludge was landfilled by Waste Management of Illinois
1411 Opus Drive
Downers Grove, IL 60515
(630)297-9344

FACILITY NAME AND PERMIT NUMBER:
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A.8. Pollution Concentrations: Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants for which limits in sewage sludge have been established in 40 CFR Part 503 for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old. Average from seven samples in 2009.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
ARSENIC	3.04	7060A	1.0 mg/kg
CADMIUM	1.04	7130	1.00 mg/kg
CHROMIUM	26.8	7190	0.75 mg/kg
COPPER	588	7210	0.25 mg/kg
LEAD	18.1	7420	1.25 mg/kg
MERCURY	0.50	7470A	0.05 mg/kg
MOLYBDENUM	13.9	6010B	1.0 mg/kg
NICKEL	17.8	7520	0.75 mg/kg
SELENIUM	7.17	7740	0.25 mg/kg
ZINC	779	7950	0.25 mg/kg

A.9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of Form 2S you have completed and are submitting:

_____ Part 1 Limited Background Information packet

Part 2 Permit Application Information packet:

__X__ Section A (General Information)

__X__ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

__X__ Section C (Land Application of Bulk Sewage Sludge)

_____ Section D (Surface Disposal)

_____ Section E (Incineration)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title James E. Holzapfel, P.E. - Director of Public Utilities-Water/Wastewater

Signature _____ Date signed 6/7/10

Telephone number (630)420-6131

Upon request of the permitting authority, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

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B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge.

B.1. Amount Generated On Site. For Calendar Year 2009

Total dry metric tons per 365-day period generated at your facility: 2,246.8 dry metric tons

B.2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use, or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.

a. Facility name N/A

b. Mailing Address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Facility Address (not P.O. Box) _____

_____

e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons

f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics.

_____

_____

B.3. Treatment Provided At Your Facility.

a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?

_____ Class A X Class B _____ Neither or unknown

b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:

Aerobic Digestion and Storage

_____

c. Which vector attraction reduction option is met for the sewage sludge at your facility?

X Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ None or unknown

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

Form Approved 1/14/99
OMB Number 2040-0086

B.3. Treatment Provided At Your Facility. (con't)

d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:
Aerobic Digestion and Storage

e. Describe, on this form or another sheet of paper, any other sewage sludge treatment or blending activities not identified in (a) - (d) above:

Complete Section B.4 if sewage sludge from your facility meets the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of §503.13, the Class A pathogen reduction requirements in §503.32(a), and one of the vector attraction reduction requirements in § 503.33(b)(1)-(8) and is land applied. Skip this section if sewage sludge from your facility does not meet all of these criteria.

N/A

B.4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements, and One of Vector Attraction Reduction Options 1-8.

a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: _____ dry metric tons

b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away for application to the land?

_____Yes _____No

Complete Section B.5. If you place sewage sludge in a bag or other container for sale or give-away for land application. Skip this section if the sewage sludge is covered in Section B.4.

N/A

B.5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: _____ dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

Complete Section B.6 if sewage sludge from your facility is provided to another facility that provides treatment or blending. This section does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this section if the sewage sludge is covered in Sections B.4 or B.5. If you provide sewage sludge to more than one facility, attach additional pages as necessary.

N/A

B.6. Shipment Off Site for Treatment or Blending.

a. Receiving facility name _____

b. Mailing address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: _____

B.6. Shipment Off Site for Treatment or Blending. (con't)

e. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? ____ Yes ____ No

Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?

_____ Class A _____ Class B _____ Neither or unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:

f. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge?
_____Yes _____No

Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ None

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge.

g. Does the receiving facility provide any additional treatment or blending activities not identified in (c) or (d) above? ____ Yes ____ No

If yes, describe, on this form or another sheet of paper, the treatment or blending activities not identified in (c) or (d) above:

h. If you answered yes to (e), (f), or (g), attach a copy of any information you provide the receiving facility to comply with the "notice and necessary information" requirement of 40 CFR 503.12(g).

i. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land?
_____ Yes _____ No

If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

Complete Section B.7 if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in:

- **Section B.4 (it meets Table 1 ceiling concentrations, Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8); or**
- **Section B.5 (you place it in a bag or other container for sale or give-away for application to the land); or**
- **Section B.6 (you send it to another facility for treatment or blending).**

B.7. Land Application of Bulk Sewage Sludge. For Calendar Year 2009, actual land applied quantity

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: 1,739.4 dry metric tons

B.7. Land Application of Bulk Sewage Sludge. (con't)

b. Do you identify all land application sites in Section C of this application? __X__ Yes _____ No

If no, submit a copy of the land application plan with application (see instructions).

c. Are any land application sites located in States other than the State where you generate sewage sludge or derive a material from sewage sludge?
_____ Yes __X__ No

If yes, describe, on this form or another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

_____

_____

Complete Section B.8 if sewage sludge from your facility is placed on a surface disposal site.

B.8. Surface Disposal. N/A

a. Total dry metric tons of sewage sludge from your facility placed on all surface disposal sites per 365-day period: _____ dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?

_____ Yes _____ No

If no, answer B.8.c through B.8.f for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one such surface disposal site, attach additional pages as necessary.

c. Site name or number _____

d. Contact person _____

Title _____

Telephone number _____

Contact is _____Site owner _____Site operator

e. Mailing address _____

_____

f. Total dry metric tons of sewage sludge from your facility placed on this surface disposal site per 365-day period: _____ dry metric tons

Complete Section B.9 if sewage sludge from your facility is fired in a sewage sludge incinerator.

B.9. Incineration. N/A

a. Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period: _____ dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? _____ Yes _____ No

If no, complete B.9.c through B.9.f for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one such sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number: _____

d. Contact person: _____

Title: _____

Telephone number: _____

Contact is: _____ Incinerator owner _____ Incinerator operator

B.9. Incineration. (con't)

e. Mailing address: _____

_____

f. Total dry metric tons of sewage sludge from your facility fired in this sewage sludge incinerator per 365-day period: _____ dry metric tons

Complete Section B.10 if sewage sludge from this facility is placed on a municipal solid waste landfill.

B.10. Disposal in a Municipal Solid Waste Landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

a. Name of landfill: Prairie View RDF

b. Contact person: Julie Paramo

Title: Senior Operations Specialist

Telephone number: (815)423-5120

Contact is _____ Landfill owner X Landfill operator

c. Mailing address: 29755 S. Prairie View Drive

Wilmington, IL 60481

d. Location of municipal solid waste landfill:

Street or Route #: 29755 S. Prairie View Drive

County: Will

City or Town: Wilmington State: IL Zip: 60481

e. Total dry metric tons of sewage sludge from your facility placed in this municipal solid waste landfill per 365-day period:

196 dry metric tons

f. List, on this form or an attachment, the numbers of all other Federal, State, and local permits that regulate the operation of this municipal solid waste landfill.

Permit Number	Type of Permit
1999-291-LF	State

g. Submit, with this application, information to determine whether the sewage sludge meets applicable requirements for disposal of sewage sludge in a municipal solid waste landfill (e.g., results of paint filter liquids test and TCLP test) (See Appendix B)

h. Does the municipal solid waste landfill comply with applicable criteria set forth in 40 CFR Part 258?

X Yes _____ No

FACILITY NAME AND PERMIT NUMBER:
Springbrook Water Reclamation Center
NPDES Permit No. IL0034061

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C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete Section C for sewage sludge that is applied to the land, unless any of the following conditions apply:

- **The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8 (fill out B.4 instead); or**
- **The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or**
- **You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).**

Complete Section C for every site on which the sewage sludge that you reported in Section B.7 is applied.

C.1. Identification of Land Application Site.

a. Site name or number See attached for Calendar Year 2009 (Appendix C)

b. Site location (Complete 1 and 2).

1. Street or Route # _____

County _____

City or Town _____ State _____ Zip _____

2. Latitude _____ Longitude _____

Method of latitude/longitude determination

_____ USGS map _____ Field survey _____ Other

c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

C.2. Owner Information.

a. Are you the owner of this land application site? _____ Yes _____ No

b. If no, provide the following information about the owner:

Name _____

Telephone number _____

Mailing Address _____

_____

C.3. Applier Information.

a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?
_____ Yes __X__ No

b. If no, provide the following information for the person who applies:

Name Stewart Spreading

Telephone number (815)695-5667

Mailing Address 3870 N. Route 71

Sheridan, IL 60551

C.4. Site Type: Identify the type of land application site from among the following.

__X__ Agricultural land _____ Forest _____ Public contact site

_____ Reclamation site _____ Other. Describe: _____

C.5. Crop or Other Vegetation Grown on Site.

a. What type of crop or other vegetation is grown on this site?

Corn, Soybeans, Wheat

b. What is the nitrogen requirement for this crop or vegetation?

Varies, determined by contractor's agronomist

C.6. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?

_____ Yes __X__ No In addition to option #1, the City of Naperville's contract requires incorporation of sludge within 24 hours of arrival at the application site.

If yes, answer C.6.a and C.6.b;

a. Indicate which vector attraction reduction option is met:

_____ Option 9 (Injection below land surface)

_____ Option 10 (Incorporation into soil within 6 hours)

b. Describe, on this form or another sheet of paper, any treatment processes used at the land application site to reduce vector attraction properties of sewage sludge:

_____

_____

Complete Question C.7 only if the sewage sludge applied to this site since July 20, 1993, is subject to the cumulative pollutant loading rates (CPLRs) in 40 CFR 503.13(b)(2).

C.7. Cumulative Loadings and Remaining Allotments.

a. Have you contacted the permitting authority in the State where the bulk sewage sludge subject to CPLRs will be applied, to ascertain whether bulk sewage sludge subject to CPLRs has been applied to this site on or since July 20, 1993?_____ Yes _____ No

If no, sewage sludge subject to CPLRs may not be applied to this site.

If yes, provide the following information:

Permitting authority _____

Contact Person _____

Telephone number _____

b. Based upon this inquiry, has bulk sewage sludge subject to CPLRs been applied to this site since July 20, 1993?

_____ Yes _____ No

If no, skip C.7.c.

c. Provide the following information for every facility other than yours that is sending, or has sent, bulk sewage sludge to CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

Facility name _____

Mailing Address _____

_____

Contact person _____

Title _____

Telephone number _____

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D. SURFACE DISPOSAL N/A

Complete this section if you own or operate a surface disposal site.

Complete Sections D.1 - D.5 for each active sewage sludge unit.

D.1. Information on Active Sewage Sludge Units.

a. Unit name or number: N/A

b. Unit location (Complete 1 and 2).

1. Street or Route # _____

County _____

City or Town _____ State _____ Zip _____

2. Latitude _____ Longitude _____

Method of latitude/longitude determination: _____ USGS map _____ Field survey _____ Other

c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period: _____ dry metric tons

e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: _____ dry metric tons

f. Does the active sewage sludge unit have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec? _____ Yes _____ No

If yes, describe the liner (or attach a description):

_____

_____

g. Does the active sewage sludge unit have a leachate collection system? _____ Yes _____ No

If yes, describe the leachate collection system (or attach a description). Also describe the method used for leachate disposal and provide the numbers of any Federal, State, or local permit(s) for leachate disposal:

_____

_____

h. If you answered no to either D.1.f. or D.1.g., answer the following question:

Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site?
_____ Yes _____ No

If yes, provide the actual distance in meters: _____

Provide the following information:

Remaining capacity of active sewage sludge unit, in dry metric tons: _____ dry metric tons

Anticipated closure date for active sewage sludge unit, if known: _____ (MM/DD/YYYY)

Provide, with this application, a copy of any closure plan that has been developed for this active sewage sludge unit.

D.2. Sewage Sludge from Other Facilities. Is sewage sent to this active sewage sludge unit from any facilities other than your facility?

_____ Yes _____ No

If yes, provide the following information for each such facility. If sewage sludge is sent to this active sewage sludge unit from more than one such facility, attach additional pages as necessary.

a. Facility name _____

b. Mailing Address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?

_____ Class A _____ Class B _____ None or unknown

e. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge:

_____

_____

f. Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ None or unknown

g. Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge

_____

_____

h. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in (d) - (g) above:

_____

_____

D.3. Vector Attraction Reduction

a. Which vector attraction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?

_____ Option 9 (Injection below and surface)
_____ Option 10 (Incorporation into soil within 6 hours)
_____ Option 11 (Covering active sewage sludge unit daily)

D.3. Vector Attraction Reduction. (con't)

b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge:

_____

_____

D.4. Ground-Water Monitoring.

a. Is ground-water monitoring currently conducted at this active sewage sludge unit, or are ground-water monitoring data otherwise available for this active sewage sludge unit?
_____ Yes _____ No

If yes, provide a copy of available ground-water monitoring data. Also, provide a written description of the well locations, the approximate depth to ground-water, and the ground-water monitoring procedures used to obtain these data.

_____

_____

b. Has a ground-water monitoring program been prepared for this active sewage sludge unit? _____ Yes _____ No

If yes, submit a copy of the ground-water monitoring program with this permit application.

c. Have you obtained a certification from a qualified ground-water scientist that the aquifer below the active sewage sludge unit has not been contaminated? _____ Yes _____ No

If yes, submit a copy of the certification with this permit application.

D.5. Site-Specific Limits. Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?
_____ Yes _____ No

If yes, submit information to support the request for site-specific pollutant limits with this application.

E. INCINERATION

Complete this section if you fire sewage sludge in a sewage sludge incinerator.

Complete this section once for each incinerator in which you fire sewage sludge. If you fire sewage sludge in more than one sewage sludge incinerator, attach additional copies of this section s necessary.

E.1. Incinerator Information.

a. Incinerator name or number: N/A

b. Incinerator location (Complete 1 and 2).

1. Street or Route # _____

County _____

City or Town _____ State _____ Zip _____

2. Latitude _____ Longitude _____

Method of latitude/longitude determination: _____ USGS map _____ Field survey _____ Other

E.2. Amount Fired. Dry metric tons per 365-day period of sewage sludge fired in the sewage sludge incinerator: _____ dry metric tons

E.3. Beryllium NESHAP.

a. Is the sewage sludge fired in this incinerator "beryllium-containing waste," as defined in 40 CFR Part 61.31? _____ Yes _____ No

Submit, with this application, information, test data, and description of measures taken that demonstrate whether the sewage sludge incinerated is beryllium-containing waste, and will continue to remain as such.

b. If the answer to (a) is yes, **submit with this application** a complete report of the latest beryllium emission rate testing and documentation of ongoing incinerator operating parameters indicating that the NESHAP emission rate limit for beryllium has been and will continue to be met.

E.4. Mercury NESHAP.

a. How is compliance with the mercury NESHAP being demonstrated?

_____ Stack testing (if checked, complete E.4.b)

_____ Sewage sludge sampling (if checked, complete E.4.c)

b. If stack testing is conducted, submit the following information with this application:

A complete report of stack testing and documentation of ongoing incinerator operating parameters indicating that the incinerator has met, and will continue to meet, the mercury NESHAP emission rate limit.

Copies of mercury emission rate tests for the two most recent years in which testing was conducted.

c. If sewage sludge sampling is used to demonstrate compliance, submit a complete report of sewage sludge sampling and documentation of ongoing incinerator operating parameters indicating that the incinerator has met, and will continue to meet the mercury NESHAP emission rate limit.

E.5. Dispersion Factor.

a. Dispersion factor, in micrograms/cubic meter per gram/second: _____

b. Name and type of dispersion model: _____

c. Submit a copy of the modeling results and supporting documentation with this application.

E.6. Control Efficiency.

a. Control efficiency, in hundredths, for the following pollutants:

Arsenic: _____ Chromium: _____ Nickel: _____

Cadmium:_____ Lead: _____

b. Submit a copy of the results or performance testing and supporting documentation (including testing dates) with this application.

E.7. Risk Specific Concentration for Chromium.

a. Risk specific concentration (RSC) used for chromium, in micrograms per cubic meter: _____

b. Which basis was used to determine the RSC?

____Table 2 in 40 CFR 503.43

____Equation 6 in 40 CFR 503,43 (site-specific determination)

c. If Table 2 was used, identify the type of incinerator used as the basis:

____Fluidized bed with wet scrubber

____Fluidized bed with wet scrubber and wet electrostatic precipitator

____Other types with wet scrubber

____Other types with wet scrubber and wet electrostatic precipitator

d. If Equation 6 was used, provide the following:

Decimal fraction of hexavalent chromium concentration to total chromium concentration in stack exit gas:_____

Submit results of incinerator stack tests for hexavalent and total chromium concentrations, including date(s) of test, with this application.

E.8. Incinerator Parameters

a. Do you monitor Total Hydrocarbons (THC) in the sewage sludge incinerator's exit gas? _____ Yes _____ No

Do you monitor Carbon Monoxide (CO) in the sewage sludge incinerator's exit gas? _____ Yes _____ No

b. Incinerator type: _____

c. Incinerator stack height, in meters: _____

Indicate whether value submitted is: _____ Actual stack height _____ Creditable stack height

E.9. Performance Test Operating Parameters

a. Maximum Performance Test Combustion Temperature: _____

b. Performance test sewage sludge feed rate, in dry metric tons/day: _____

indicate whether value submitted is:

_____ Average use _____ Maximum design

Submit, with this application, supporting documents describing how the feed rate was calculated.

c. Submit, with this application, information documenting the performance test operating parameters for the air pollution control device(s) used for this sewage sludge incinerator.

E.10. **Monitoring Equipment.** List the equipment in place to monitor the following parameters:

a. Total hydrocarbons or carbon monoxide: _____

b. Percent oxygen: _____

c. Moisture content: _____

d. Combustion temperature: _____

e. Other: _____

E.11. **Air Pollution Control Equipment.** Submit, with this application, a list of all air pollution control equipment used with this sewage sludge incinerator.

_____

_____

_____

_____

Appendix A

Biomonitoring Test Data

NORTH SHORE SANITARY DISTRICT
POST OFFICE BOX 750, WM. KOEPSEL DR., GURNEE, ILLINOIS 60031
847/623-6060 FAX 847/623-3205 TDD 847/623-6091

February 16, 2010

Mr. Joseph Slevnik
City of Naperville
P.O. Box 3020
Naperville, IL 60566

Dear Mr. Slevnik:

Whole effluent sample was collected at the Springbrook Water Reclamation Center WWTP, NPDES permit No. IL0034061, February 2, 2010 for Whole Effluent Toxicity (WET) analysis. The effluent sample and receiving stream control were delivered on the same day, by City of Naperville personnel, to the laboratory at the North Shore Sanitary District (NSSD).

The Springbrook Water Reclamation District is located at 3712 Plainfield/Naperville Road, Naperville, IL and the receiving water body is the DuPage River.

The requested analysis is 48 hour, acute invertebrate testing using Ceriodaphnia dubia and 96 hour, acute vertebrate testing using fathead minnows. All testing was performed at the NSSD laboratory according to procedures outlined in the NSSD Quality Assurance Manual and EPA/821-R-02-012.

There were no deviations from the referenced method.

The following is a brief summary of the results.

1. The 48 hour invertebrate test using Ceriodaphnia dubia resulted in 90 percent survival of test organisms in whole effluent indicating no apparent acute toxicity.

2. The 96 hour fish testing using fathead minnows (Pimephales promelas) resulted in 100 percent survival of test organisms in whole effluent indicating no apparent acute toxicity.

The results of these tests show that the City of Naperville/Springbrook Water Reclamation Center Whole Effluent collected on February 2, 2010 exhibited no acute toxicity to either test species.

Please feel free to call if you have questions.

Sincerely,

Robert Flood
Aquatic Biologist
NORTH SHORE SANITARY DISTRICT

RF:mjb
cc: Lab Billing File
Bio Lab File

BIOMONITORING CHAIN OF CUSTODY FORM

North Shore Sanitary District
P.O. BOX 750 Wm. Koepsel Dr.
Gurnee, IL 60031
(847) 623-6060

Client Name: CITY OF NAPERVILLE

Address 400 S. EAGLE STREET, P.O. BOX 3020, NAPERVILLE, IL 60566

Phone: (630) 420-6125 Contact Person: JOSEPH SLEVNIK

Permit Number: IL0034061

Plant Location: SPRINGBROOK WATER RECLAMATION CENTER, 3712 Plainfield/Naperville Rd, Naperville, IL 60564

Mean Daily Discharge on Sample Collection Date: 24.629 MGD

Testing Requirements: Biomonitoring - Acute Toxicity a) FISH-96 hr STATIC LC50 BIOASSAY - FLATHEAD MINNOW b) INVERTEBRATE-48hr STATIC LC50 BIOASSAY - CERIODAPHNIA

Name of Receiving Water Body: DUPAGE RIVER

Effluent Samples
Sample Collector (Print): JOSEPH SLEVNIK Signature: Joseph J. Slevnik

Sample Number	Sample Point	Type of Sample (Grab or Composite)	Collection Date/Time
NR10-08	Discharge 001	COMPOSITE (24 HOUR)	02-01-10 / 24 hr Composite (12x)

Receiving Water Samples
Sample Collector (Print): JOSEPH SLEVNIK Signature: Joseph J. Slevnik

Sample Number	Sample Point	Type of Sample (Grab or Composite)	Collection Date/Time
NR10-09	DuPAGE RIVER - Upstream of Discharge	GRAB	02-02-10 / 08:05 am

Relinquished By:	Date/Time	Received By:	Date/Time
Joseph J. Slevnik	02-02-10 10:15	[illegible]	2/2/10 @ 1015

Dispatched By: _____ Received for Laboratory By: [illegible]

Method of Shipment: _____

Effluent Sample Temperature on Receipt: 2.8°C

Receiving Water Temperature on Receipt: 0.1°C

Lapsed Time from Sample Collection to Delivery at the Laboratory: 10 hr 15 min

Test Started, Date/Time: 2/2/10 @ 1445

Lapsed Time from Sample Collection to Test Started: 14 hr. 45 min

Whole Effluent Toxicity Reporting: Source of Effluent and Receiving Water

EFFLUENT SAMPLE

Sampling Point:	City of Naperville Springbrook Water Reclamation Center
Sample Collection Method:	24-hour composite
Collection Dates and Times:	2/1-2/10 2400-2400
Mean Daily Discharge on the Sample Collection Date:	24.629 MGD
Lapsed Time From Sample Collection to Delivery:	10 hours 15 minutes
Lapsed Time From Sample Collection to Analysis Begins:	14 hours 45 minutes
Sample Temperature When Received at the Laboratory:	2.8 deg C (transported on wet ice)

RECEIVING WATER SAMPLE

Sampling Point:	Du Page River
Sample Collection Method:	Grab
Collection Dates and Times:	2/2/10 @ 0805
Sample Temperature When Received at the Laboratory:	0.1 deg C

North Shore Sanitary District
Biomonitoring Laboratory
Standard Testing Protocols for:

The Ceriodaphnia dubia 48 hr. Acute Toxicity Test

1. Test Type:	Static non-renewal
2. Test Duration:	48 hours
3. Test Chamber:	30 ml polystyrene cup
4. Test Solution Volume:	20 ml
5. Age of Test Organism:	juvenile, < 24 hours old (24 hour hatching window)
6. Number of Organisms per Test Chamber:	5
7. Number of Replicates per Concentration:	4
8. Number of Organisms per Concentration:	20
9. Feeding Regime:	Fed *Selenastrum* algae daily (Approx. $4.2 * 10^5$ cells/ml in the culture vessel) and YCT
10. Culturing Temperature:	25.0 C +/- 1.0 C
11. Testing Temperature:	25.0 C +/- 1.0 C
12. Test Organism Source:	In house cultures obtained from USEPA Newtown, Ohio
13. End Point of Test:	Death, immotility
14. Test Acceptability Criterion:	90% or greater survival in the controls
15. Sample Holding Time:	36 hrs. after completion of sampling

Ceriodaphnia dubia **Acute Toxicity Test**
Data Summary Sheet

Discharger: City of Naperville Springbrook Water Reclamation Center
3712 Plainfield/Naperville Road
Naperville, IL 60564
Permit Number: IL0034061
Sample Date: February 1-2, 2010 @ 2400 - 2400
Sample Type: 24 Hour Composite
Analysis Dates: February 2, 2010 @ 1445 - February 4, 2010 @ 1525
Test Organism: Ceriodaphnia dubia <24 hours old, 24 hour hatching window
Test Organism Source: In house cultures
Test Duration: 48 hours
Deviations from Standard Testing Protocol: None

Treatment	Receiving Stream Control	6.25% Effl.	12.5% Effl.	25% Effl.	50% Effl.	100% Effl.	Lab Control
Number of live organisms:	20 of 20	19 of 20	20 of 20	20 of 20	20 of 20	18 of 20	20 of 20
Survival (%):	100	95	100	100	100	90	100
pH :	7.9 - 8.4	7.9 - 8.4	7.9 - 8.4	7.9 - 8.5	7.9 - 8.5	7.9 - 8.5	8.2 - 8.6
Temp. Range (degrees C):	24.2 - 24.6 mean =24.4	24.1 - 25.1 mean =24.6	24.0 - 25.2 mean =24.6	24.0 - 25.1 mean =24.6	23.9 - 25.0 mean =24.6	24.0 - 24.7 mean =24.4	24.3 - 24.7 mean =24.5
Dissolved Oxygen (mg/l):	7.4 - 9.4	7.4 - 9.2	7.2 - 9.3	7.4 - 9.1	7.4 - 9.0	7.2 - 8.6	7.5 - 7.8
Conductivity (umhos):	1483	1476	1461	1419	1365	1227	341
Hardness (mg/l as CaCO3):	412	–	–	–	–	339	–
Total Alkalinity (mg/l as CaCO3):	255	–	–	–	–	217	–
Ammonia Nitrogen (mg/l):	0.14	–	–	–	–	0.45	–
Total Residual Chlorine (mg/l):	–	–	–	–	–	<0.1	–

North Shore Sanitary District
Biomonitoring Laboratory
Standard Testing Protocols for:

The Fathead Minnow (Pimephales promelas) 96 hr. Acute Toxicity Test

1. Test Type:	Static-renewal
2. Test Duration:	96 hours
3. Test Chamber:	600 ml glass beaker
4. Test Solution Volume:	300 ml
5. Age of Test Organism:	larvae, 1-14 days old (24 hr hatching window)
6. Number of Organisms per Test Chamber:	10
7. Number of Replicates per Concentration:	2
8. Number of Organisms per Concentration:	20
9. Feeding Regime:	Before testing, daily feeding of *Artemia* nauplii in an amount sufficient to provide a slight excess 1 hour after feeding. Feed 2 hrs. prior to test solution renewal at 48hrs.
10. Culturing Temperature:	25.0 C +/- 1.0 C
11. Testing Temperature:	25.0 C +/- 1.0 C
12. Test Organism Source:	In house cultures obtained from USEPA Newtown, Ohio
13. End Point of Test:	Death, immotility
14. Test Acceptability Criterion:	90% or greater survival in the controls
15. Sample Holding Time:	36 hrs. after completion of sampling

Fathead Minnow (*Pimephales promelas*) Acute Toxicity Test
Data Summary Sheet

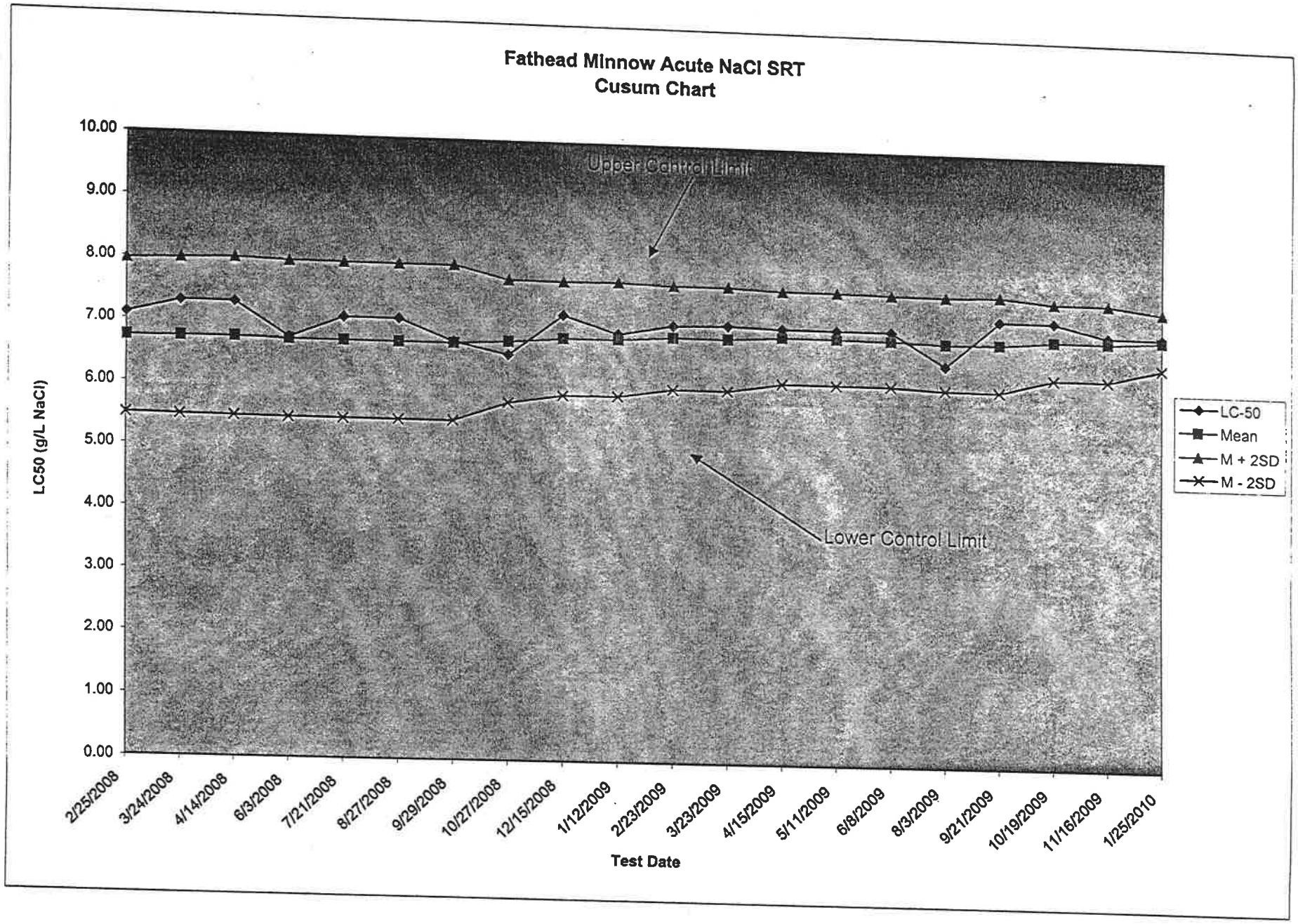
Discharger: City of Naperville Springbrook Water Reclamation Center
3712 Plainfield/Naperville Road
Naperville, IL 60564
Permit Number: IL0034061
Sample Date: February 1-2, 2010 @ 2400 - 2400
Sample Type: 24 Hour Composite
Analysis Dates: February 2, 2010 @ 1245 - February 6, 2010 @ 1300
Test Organism: Fathead Minnow 14 days old, 24 hour hatching window
Test Organism Source: In house cultures
Test Duration: 96 hours
Deviations from Standard Testing Protocol: None

Treatment	Receiving Stream Control	6.25% Effl.	12.5% Effl.	25% Effl.	50% Effl.	100% Effl.	Lab Control
Number of live organisms:	20 of 20	20 of 20	20 of 20	20 of 20	20 of 20	20 of 20	20 of 20
Survival (%):	100	100	100	100	100	100	100
pH :	7.9 - 8.4	7.9 - 8.5	7.9 - 8.5	7.9 - 8.5	7.9 - 8.5	7.9 - 8.4	7.9 - 8.5
Temp. Range (degrees C):	24.6 - 25.3 mean =25.0	24.6 - 25.2 mean =25.0	24.5 - 25.2 mean =24.9	24.3 - 25.1 mean =24.8	24.5 - 25.1 mean =24.8	24.3 - 24.8 mean =24.7	24.6 - 25.4 mean =24.9
Dissolved Oxygen (mg/l):	6.7 - 9.4	6.7 - 9.2	6.7 - 9.3	6.8 - 9.1	6.9 - 9.0	6.8 - 8.6	6.7 - 7.8
Conductivity (umhos):	1483 - 1513	1476 - 1497	1461 - 1482	1419 - 1439	1365 - 1388	1227 - 1254	341 - 371
Hardness (mg/l as CaCO3):	412	–	–	–	–	339	–
Total Alkalinity (mg/l as CaCO3):	255	–	–	–	–	217	–
Ammonia Nitrogen (mg/l):	0.14	–	–	–	–	0.45	–
Total Residual Chlorine (mg/l):	–	–	–	–	–	<0.1	–

Quality Assurance
Standard Reference Toxicity Testing

Fathead Minnow (*Pimephales promelas*) 96 hr. Acute SRT

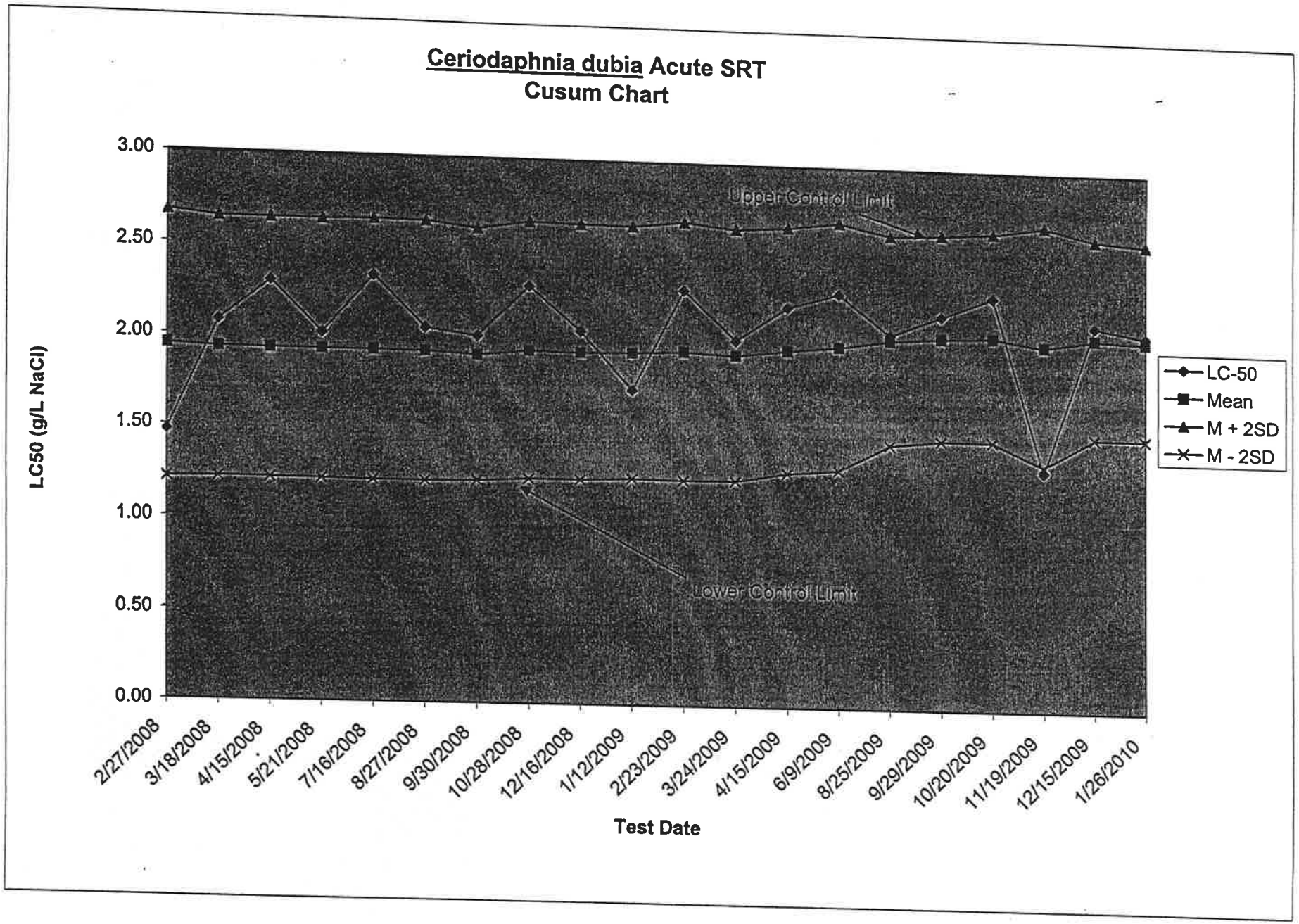
Reference Toxicant:	Sodium chloride (NaCl)
Source:	Fisher Scientific
Date Received:	10/22/03
Lot Number:	035425
Dilution Water:	Laboratory Culture Water
Methods:	Same as listed under Standard Testing Protocols for The Fathead Minnow 96 hr. Acute Toxicity Test
Most Recent Test:	1/25/2010
Test Results:	LC 50 = 7.10 g/l NaCl Upper Control Chart Limit = 7.51 Lower Control Chart Limit = 6.60 see attached cusum chart


Fathead Minnow Acute NaCl SRT
Cusum Chart
LC50 (g/L NaCl)
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Upper Control Limit
Lower Control Limit
LC-50
Mean
M + 2SD
M - 2SD
2/25/2008
3/24/2008
4/14/2008
6/3/2008
7/21/2008
8/27/2008
9/29/2008
10/27/2008
12/15/2008
1/12/2009
2/23/2009
3/23/2009
4/15/2009
5/11/2009
6/8/2009
8/3/2009
9/21/2009
10/19/2009
11/16/2009
1/25/2010
Test Date

Quality Assurance
Standard Reference Toxicity Testing

Ceriodaphnia dubia **48 hr. Acute SRT**

Reference Toxicant:	Sodium chloride (NaCl)
Source:	Fisher Scientific
Date Received:	10/22/03
Lot Number:	035425
Dilution Water:	Laboratory Culture Water
Methods:	Same as listed under Standard Testing Protocols for The Ceriodaphnia dubia 48 hr. Acute Toxicity Test
Most Recent Test:	1/26/2010
Test Results:	LC 50 = 2.10 g/l NaCl Upper Control Chart Limit = 2.61 Lower Control Chart Limit = 1.53 see attached cusum chart


Ceriodaphnia dubia Acute SRT
Cusum Chart
LC50 (g/L NaCl)
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Upper Control Limit
Lower Control Limit
LC-50
Mean
M + 2SD
M - 2SD
2/27/2008
3/18/2008
4/15/2008
5/21/2008
7/16/2008
8/27/2008
9/30/2008
10/28/2008
12/16/2008
1/12/2009
2/23/2009
3/24/2009
4/15/2009
6/9/2009
8/25/2009
9/29/2009
10/20/2009
11/19/2009
12/15/2009
1/26/2010
Test Date

Ceriodaphnia dubia **Acute Toxicity Testing - Mortality Data**

Client Name: Naperville

Person Conducting Test: WL

Sample Number:

Test Start Date: 2/2/10 Time: 1445

Sample Date: ~~Acute~~ w ~~static~~ 2/2/10

Test End Date: 2/4/10 Time: 1525

Test Type: Acute - static

Dilution Water Used: Rec. Stream

Age of Neonates: <24 hrs.

Hatching Window: <24 hrs.

Feeding: fed Selenastrum Algae and YCT prior to testing

Test Vessel Size: 30ml

Test Solution Volume: 20ml

Sample Treatment ?: Strained through 63um plankton net

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms		
		0 hrs	24 hrs	48 hrs
Rec Stream Control	4-1	5	5	5
	5-1	5	5	5
	6-1	5	5	5
	7-1	5	5	5
6.25	4-2	5	5	5
	5-2	5	5	5
	6-2	5	5	5
	7-2	5	5	4
12.5	4-3	5	5	5
	5-3	5	5	5
	6-3	5	5	5
	7-3	5	5	5
25	4-4	5	5	5
	5-4	5	5	5
	6-4	5	5	5
	7-4	5	5	5

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms		
		0 hrs	24 hrs	48 hrs
50	4-5	5	5	5
	5-5	5	5	~~4~~5
	6-5	5	5	5
	7-5	5	5	5
100	4-6	5	4	4
	5-6	5	5	4
	6-6	5	5	5
	7-6	5	5	5
Lab Control	4-7	5	5	5
	5-7	5	5	5
	6-7	5	5	5
	7-7	5	5	5

nitials:

) hrs= ml 24 hrs= ml 48 hrs= ml

omments:

Ceriodaphnia dubia **Acute toxicity Testing Chemistry Data**

Client Name: Naperville Sample Number: _____

Sample Date: 2/2/10 Test Start Date: 2/2/10

Parameter	Time	Rec Stream Control	Concentration, % Effluent 6.25	12.5	25	50	100	Lab Control		
Dissolved Oxygen (mg/l)	Initial	9.4	9.2	9.3	9.1	9.0	8.6	7.8		
	24 hrs									
	48 hrs	7.4	7.4	7.2	7.4	7.4	7.2	7.5		
pH (units)	Initial	7.9	7.9	7.9	7.9	7.9	7.9	8.2		
	24 hrs									
	48 hrs	8.4	8.4	8.4	8.5	8.5	8.5	8.6		
Temp (Cent)	Initial	24.6	25.1	25.2	25.1	25.0	24.7	24.7		
	24 hrs									
	48 hrs	24.2	24.1	24.0	24.0	23.9	24.0	24.3		
Cond (micromhos)	Initial	1483	1476	1461	1419	1365	1227	341		
NH3 (mg/l)	Initial	0.14					0.45			
T. Cl2 (mg/l)	Initial									
Alk (mg/l)	Initial	255					217			
Hard (mg/l)	Initial	412					339			

Initials: Initial MC 24 hr _____ 48 hr MC

Fathead Minnow (*Pimephales promelas*) Acute Toxicity Testing - Mortality Data

Client Name: Naperville — Person Conducting Test: ML

Sample Number: _____ — Test Start Date: 2/2/10 Time: 1245

Sample Date: 2/2/10 — Test End Date: 2/6/10 Time: 13:00

Test Type: Acute - Static Renewal — Dilution Water Used: Rec. Stream

Age of Fish: 14 days old — Hatching Window: 24 hrs.

Feeding: fed newly hatched brine shrimp prior to testing and at 46 hrs.

Aeration: none

Test Vessel Size: 600ml — Test Solution Volume: 300ml

Sample Treatment ?: Strained through 63 um plankton net

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms				
		0 hrs	24 hrs	48 hrs	72 hrs	96hrs
Rec. Stream Control	1	10	10	10	10	10
	2	10	10	10	10	10
6.25	3	10	10	10	10	10
	4	10	10	10	10	10
12.5	5	10	10	10	10	10
	6	10	10	10	10	10
25	7	10	10	10	10	10
	8	10	10	10	10	10
50	9	10	10	10	10	10
	10	10	10	10	10	10
100	11	10	10	10	10	10
	12	10	10	10	10	10
Lab Control	13	10	10	10	10	10
	14	10	10	10	10	10

Initials:

0 hrs= ML 24 hrs= ML 48 hrs= ML

Fathead Minnow (*Pimephales promelas*) Acute toxicity Testing Chemistry Data

Client Name: Naperville Sample Number:

Sample Date: 2/2/10 Test Start Date: 2/2/10

Parameter	Time	Rec. Stream Control	6.25	12.5	25	50	100	Lab Control		
		Concentration, % Effluent								
Dissolved Oxygen (mg/l)	Initial	9.4	9.2	9.3	9.1	9.0	8.6	7.8		
	24 hrs	7.5	7.1	7.5	7.2	7.2	7.2	7.4		
	48 hrs	7.9	7.7	8.0	8.2	8.0	8.5	7.8		
	72 hrs	7.0	7.0	7.1	7.0	7.1	6.9	7.0		
	96 hrs	6.7	6.7	6.7	6.8	6.9	6.8	6.7		
pH (units)	Initial	7.9	7.9	7.9	7.9	7.9	7.9	8.2		
	24 hrs	7.9	8.1	8.1	8.1	8.1	8.2	8.3		
	48 hrs	8.2	8.2	8.2	8.2	8.2	8.1	7.9		
	72 hrs	8.4	8.4	8.4	8.4	8.4	8.4	8.5		
	96 hrs	8.4	8.5	8.5	8.5	8.5	8.4	8.4		
Temp (Cent)	Initial	24.6	25.1	25.2	25.1	25.0	24.7	24.7		
	24 hrs	25.0	25.2	25.2	24.8	25.1	24.8	25.4		
	48 hrs	24.8	24.6	24.5	24.8	24.6	24.8	24.6		
	72 hrs	25.1	25.1	24.7	24.3	24.5	24.3	24.6		
	96 hrs	25.3	25.1	25.1	25.0	25.0	24.8	25.1		
Cond (micromhos)	Initial	1483	1476	1461	1419	1365	1227	341		
	48 hrs	1513	1497	1482	1439	1388	1254	371		
NH3 (mg/l)	Initial	0.14					0.45			
T. Cl2 (mg/l)	Initial									
Alk (mg/l)	Initial	255					217			
Hard (mg/l)	Initial	412					339			

Initials: Initial nl 24 hr nl 48 hr nl 72 hr KC 96 hr KC

NORTH SHORE SANITARY DISTRICT
POST OFFICE BOX 750, WM. KOEPSEL DR., GURNEE, ILLINOIS 60031
847/623-6060 FAX 847/623-3205 TDD 847/623-6091

November 10, 2009

Mr. Joseph Slevnik
City of Naperville
P.O. Box 3020
Naperville, IL 60566

Dear Mr. Slevnik:

Whole effluent sample was collected at the Springbrook Water Reclamation Center WWTP, NPDES permit No. IL0034061, November 3, 2009 for Whole Effluent Toxicity (WET) analysis. The effluent sample and receiving stream control were delivered on the same day, by City of Naperville personnel, to the laboratory at the North Shore Sanitary District (NSSD).

The Springbrook Water Reclamation District is located at 3712 Plainfield/Naperville Road, Naperville, IL and the receiving water body is the DuPage River.

The requested analysis is 48 hour, acute invertebrate testing using Ceriodaphnia dubia and 96 hour, acute vertebrate testing using fathead minnows. All testing was performed at the NSSD laboratory according to procedures outlined in the NSSD Quality Assurance Manual and EPA/821-R-02-012.

There were no deviations from the referenced method.

The following is a brief summary of the results.

1. The 48 hour invertebrate test using Ceriodaphnia dubia resulted in 95 percent survival of test organisms in whole effluent indicating no apparent acute toxicity.

2. The 96 hour fish testing using fathead minnows (Pimephales promelas) resulted in 95 percent survival of test organisms in whole effluent indicating no apparent acute toxicity.

The results of these tests show that the City of Naperville/Springbrook Water Reclamation Center Whole Effluent collected on November 3, 2009 exhibited no acute toxicity to either test species.

Please feel free to call if you have questions.

Sincerely,

Robert Flood
Aquatic Biologist
NORTH SHORE SANITARY DISTRICT

RF:mjb
cc: Lab Billing File
Bio Lab File

BIOMONITORING CHAIN OF CUSTODY FORM

North Shore Sanitary District
P.O. BOX 750 Wm. Koepsel Dr.
Gurnee, IL 60031
(847) 623-6060

Client Name: CITY of NAPERVILLE

Address: 400 S. EAGLE STREET, P.O. BOX 3020, NAPERVILLE, IL 60566

Phone: (630) 420-6125 Contact Person: JOSEPH SLEVNIK

Permit Number: IL0034061

Plant Location: SPRINGBROOK WATER RECLAMATION CENTER, 3712 PLAINFIELD/NAPERVILLE Rd, NAPERVILLE, IL 60564

Mean Daily Discharge on Sample Collection Date: 25.522 MGD

Testing Requirements: BIOMONITORING-ACUTE TOXICITY a) FISH-96hr STATIC LC50 BIOASSAY-FATHEAD MINNOW b) INVERTEBRATE-48hr STATIC LC50 BIOASSAY-CERIODAPHNIA

Name of Receiving Water Body: DuPAGE RIVER

Effluent Samples
Sample Collector (Print): JOSEPH SLEVNIK Signature: Joseph J. Slevnik

Sample Number	Sample Point	Type of Sample (Grab or Composite)	Collection Date/Time
NR09-66	Discharge 001	COMPOSITE (24 HOUR)	11-02-09/24hr Composite (12x) 11-03-09 2400-2400

Receiving Water Samples
Sample Collector (Print): JOSEPH SLEVNIK Signature: Joseph J. Slevnik

Sample Number	Sample Point	Type of Sample (Grab or Composite)	Collection Date/Time
NR09-67	DuPAGE RIVER -upstream of Discharge	GRAB	11-03-09/ 07:55am

Relinquished By:	Date/Time	Received By:	Date/Time
Joseph J. Slevnik	11-03-09/10:30 am	Mary Jo Bryant	11/3/09 10:30

Dispatched By: _____ Received for Laboratory By: [illegible]

Method of Shipment: _____

Effluent Sample Temperature on Receipt: 4.1°C

Receiving Water Temperature on Receipt: 5.2°C

Lapsed Time from Sample Collection to Delivery at the Laboratory: 10 hrs 30 min

Test Started, Date/Time: 11/4/09 @ 1200

Lapsed Time from Sample Collection to Test Started: 36 hrs.

Whole Effluent Toxicity Reporting:
Source of Effluent and Receiving Water

EFFLUENT SAMPLE

Sampling Point:	City of Naperville Springbrook Water Reclamation Center
Sample Collection Method:	24-hour composite
Collection Dates and Times:	11/2-3/09 2400-2400
Mean Daily Discharge on the Sample Collection Date:	25.522 MGD
Lapsed Time From Sample Collection to Delivery:	10 hours 30 minutes
Lapsed Time From Sample Collection to Analysis Begins:	36 hours
Sample Temperature When Received at the Laboratory:	4.1 deg C (transported on wet ice)

RECEIVING WATER SAMPLE

Sampling Point:	Du Page River
Sample Collection Method:	Grab
Collection Dates and Times:	11/3/09 @ 0755
Sample Temperature When Received at the Laboratory:	5.2 deg C

North Shore Sanitary District
Biomonitoring Laboratory
Standard Testing Protocols for:

The Ceriodaphnia dubia 48 hr. Acute Toxicity Test

1. Test Type:	Static non-renewal
2. Test Duration:	48 hours
3. Test Chamber:	30 ml polystyrene cup
4. Test Solution Volume:	20 ml
5. Age of Test Organism:	juvenile, < 24 hours old (24 hour hatching window)
6. Number of Organisms per Test Chamber:	5
7. Number of Replicates per Concentration:	4
8. Number of Organisms per Concentration:	20
9. Feeding Regime:	Fed *Selenastrum* algae daily (Approx. 4.2 * 10^5 cells/ml in the culture vessel) and YCT
10. Culturing Temperature:	25.0 C +/- 1.0 C
11. Testing Temperature:	25.0 C +/- 1.0 C
12. Test Organism Source:	In house cultures obtained from USEPA Newtown, Ohio
!3. End Point of Test:	Death, immotility
14. Test Acceptability Criterion:	90% or greater survival in the controls
15. Sample Holding Time:	36 hrs. after completion of sampling

Ceriodaphnia dubia **Acute Toxicity Test**
Data Summary Sheet

Discharger: City of Naperville Springbrook Water Reclamation Center
3712 Plainfield/Naperville Road
Naperville, IL 60564
Permit Number: IL0034061
Sample Date: November 2-3, 2009 @ 2400 - 2400
Sample Type: 24 Hour Composite
Analysis Dates: November 4, 2009 @ 1100 - November 6, 2009 @ 0945
Test Organism: Ceriodaphnia dubia <24 hours old, 24 hour hatching window
Test Organism Source: In house cultures
Test Duration: 48 hours
Deviations from Standard Testing Protocol: None

Treatment	Receiving Stream Control	6.25% Effl.	12.5% Effl.	25% Effl.	50% Effl.	100% Effl.	Lab Control
Number of live organisms:	20 of 20	20 of 20	19 of 20	18 of 20	18 of 20	19 of 20	19 of 20
Survival (%):	100	100	95	90	90	95	95
pH :	7.7 - 8.5	7.7 - 8.5	7.7 - 8.6	7.7 - 8.6	7.7 - 8.6	7.6 - 8.5	7.8 - 8.5
Temp. Range (degrees C):	24.2 - 24.3 mean =24.2	24.3 - 24.4 mean =24.4	24.3 - 24.6 mean =24.4	24.4 - 24.7 mean =24.6	24.3 - 24.8 mean =24.6	24.3 - 25.2 mean =24.8	24.3 - 24.4 mean =24.4
Dissolved Oxygen (mg/l):	7.8 - 8.7	7.7 - 8.4	7.8 - 8.4	7.7 - 8.3	7.6 - 8.3	7.5 - 8.3	7.6 - 7.7
Conductivity (umhos):	898	906	917	931	968	1054	309
Hardness (mg/l as CaCO3):	291	–	–	–	–	309	–
Total Alkalinity (mg/l as CaCO3):	204	–	–	–	–	202	–
Ammonia Nitrogen (mg/l):	0.19	–	–	–	–	0.19	–
Total Residual Chlorine (mg/l):	–	–	–	–	–	<0.1	–

North Shore Sanitary District
Biomonitoring Laboratory
Standard Testing Protocols for:

The Fathead Minnow (Pimephales promelas) 96 hr. Acute Toxicity Test

1. Test Type:	Static-renewal
2. Test Duration:	96 hours
3. Test Chamber:	600 ml glass beaker
4. Test Solution Volume:	300 ml
5. Age of Test Organism:	larvae, 1-14 days old (24 hr hatching window)
6. Number of Organisms per Test Chamber:	10
7. Number of Replicates per Concentration:	2
8. Number of Organisms per Concentration:	20
9. Feeding Regime:	Before testing, daily feeding of *Artemia* nauplii in an amount sufficient to provide a slight excess 1 hour after feeding. Feed 2 hrs. prior to test solution renewal at 48hrs.
10. Culturing Temperature:	25.0 C +/- 1.0 C
11. Testing Temperature:	25.0 C +/- 1.0 C
12. Test Organism Source:	In house cultures obtained from USEPA Newtown, Ohio
13. End Point of Test:	Death, immotility
14. Test Acceptability Criterion:	90% or greater survival in the controls
15. Sample Holding Time:	36 hrs. after completion of sampling

Fathead Minnow (*Pimephales promelas*) Acute Toxicity Test
Data Summary Sheet

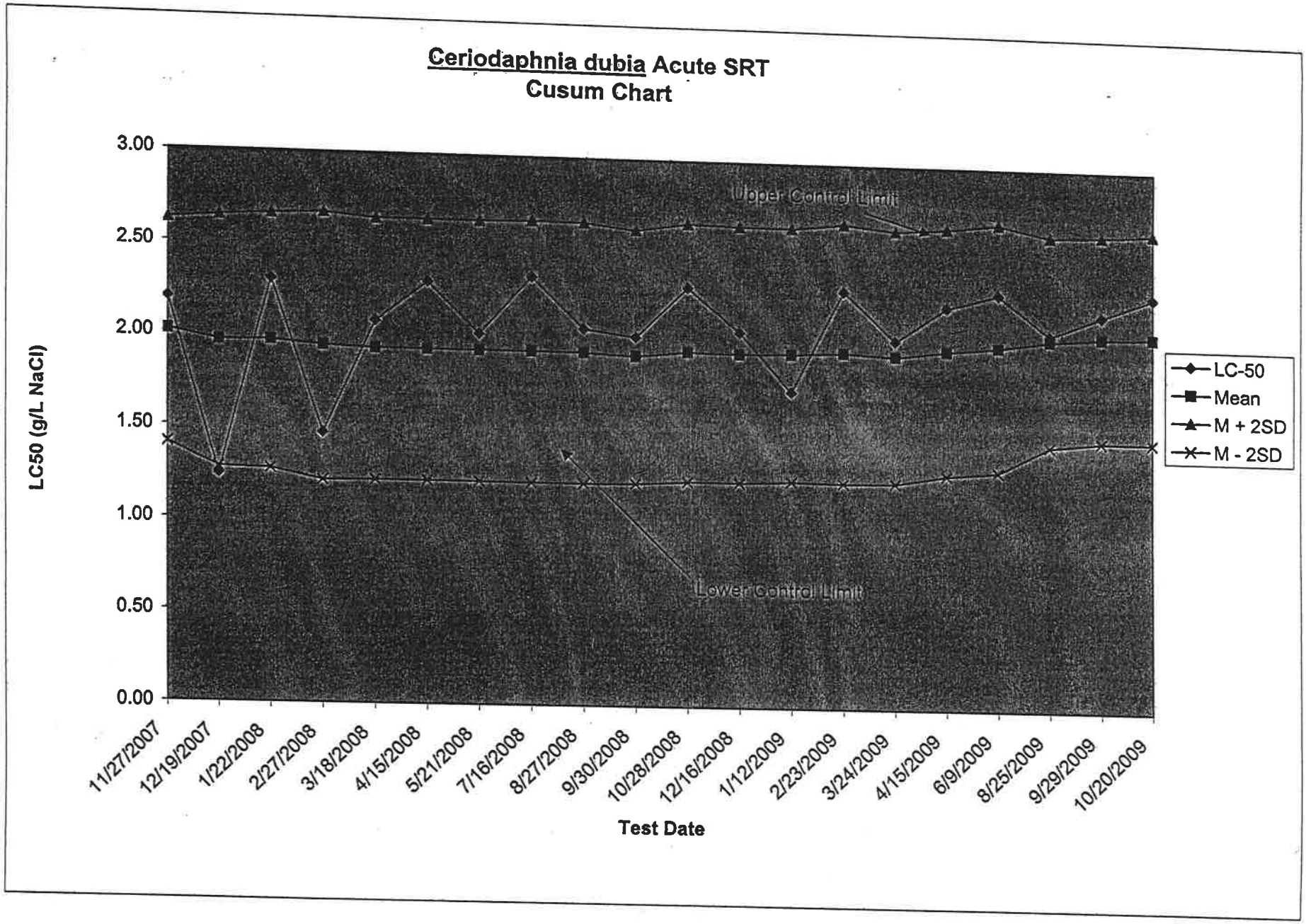
Discharger: City of Naperville Springbrook Water Reclamation Center
3712 Plainfield/Naperville Road
Naperville, IL 60564
Permit Number: IL0034061
Sample Date: November 2-3, 2009 @ 2400 - 2400
Sample Type: 24 Hour Composite
Analysis Dates: November 4, 2009 @ 1200 - November 8, 2009 @ 1230
Test Organism: Fathead Minnow 12 days old, 24 hour hatching window
Test Organism Source: In house cultures
Test Duration: 96 hours
Deviations from Standard Testing Protocol: None

Treatment	Receiving Stream Control	6.25% Effl.	12.5% Effl.	25% Effl.	50% Effl.	100% Effl.	Lab Control
Number of live organisms:	20 of 20	20 of 20	20 of 20	20 of 20	20 of 20	19 of 20	20 of 20
Survival (%):	100	100	100	100	100	95	100
pH :	7.7 - 8.2	7.7 - 8.3	7.7 - 8.4	7.7 - 8.4	7.7 - 8.4	7.6 - 8.4	7.8 - 8.7
Temp. Range (degrees C):	24.2 - 25.1 mean =24.8	24.0 - 25.1 mean =24.6	24.5 - 25.1 mean =24.7	24.3 - 25.2 mean =24.7	24.0 - 24.8 mean =24.3	23.9 - 25.2 mean =24.4	24.2 - 24.9 mean =24.4
Dissolved Oxygen (mg/l):	6.6 - 8.7	6.6 - 8.4	6.7 - 8.4	6.6 - 8.5	6.4 - 8.3	6.3 - 8.3	6.4 - 7.9
Conductivity (umhos):	898 - 918	906 - 927	917 - 926	931 - 958	968 - 994	1054 - 1067	309 - 312
Hardness (mg/l as CaCO3):	291	–	–	–	–	309	–
Total Alkalinity (mg/l as CaCO3):	204	–	–	–	–	202	–
Ammonia Nitrogen (mg/l):	0.19	–	–	–	–	0.19	–
Total Residual Chlorine (mg/l):	–	–	–	–	–	<0.1	–

Quality Assurance
Standard Reference Toxicity Testing

Ceriodaphnia dubia **48 hr. Acute SRT**

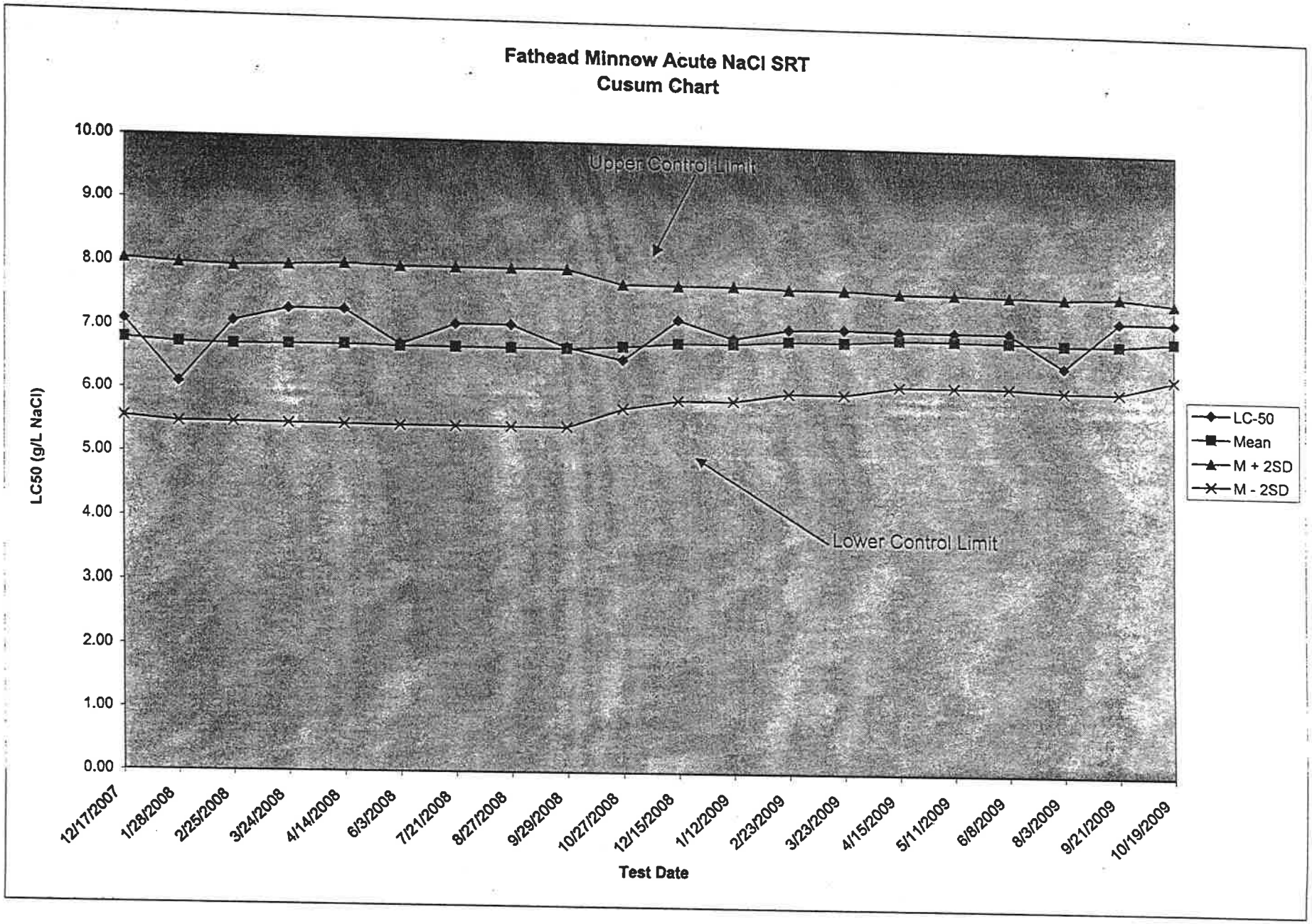
Reference Toxicant:	Sodium chloride (NaCl)
Source:	Fisher Scientific
Date Received:	10/22/03
Lot Number:	035425
Dilution Water:	Laboratory Culture Water
Methods:	Same as listed under Standard Testing Protocols for The Ceriodaphnia dubia 48 hr. Acute Toxicity Test
Most Recent Test:	10/20/2009
Test Results:	LC 50 = 2.30 g/l NaCl Upper Control Chart Limit = 2.66 Lower Control Chart Limit = 1.50 see attached cusum chart


Ceriodaphnia dubia Acute SRT
Cusum Chart
3.00
2.50
2.00
1.50
1.00
0.50
0.00
LC50 (g/L NaCl)
Upper Control Limit
Lower Control Limit
LC-50
Mean
M + 2SD
M - 2SD
11/27/2007
12/19/2007
1/22/2008
2/27/2008
3/18/2008
4/15/2008
5/21/2008
7/16/2008
8/27/2008
9/30/2008
10/28/2008
12/16/2008
1/12/2009
2/23/2009
3/24/2009
4/15/2009
6/9/2009
8/25/2009
9/29/2009
10/20/2009
Test Date

Quality Assurance
Standard Reference Toxicity Testing

Fathead Minnow (*Pimephales promelas*) 96 hr. Acute SRT

Reference Toxicant:	Sodium chloride (NaCl)
Source:	Fisher Scientific
Date Received:	10/22/03
Lot Number:	035425
Dilution Water:	Laboratory Culture Water
Methods:	Same as listed under Standard Testing Protocols for The Fathead Minnow 96 hr. Acute Toxicity Test
Most Recent Test:	10/19/2009
Test Results:	LC 50 = 7.31 g/l NaCl Upper Control Chart Limit = 7.62 Lower Control Chart Limit = 6.38 see attached cusum chart


Fathead Minnow Acute NaCl SRT
Cusum Chart
Upper Control Limit
Lower Control Limit
LC50 (g/L NaCl)
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
12/17/2007
1/28/2008
2/25/2008
3/24/2008
4/14/2008
6/3/2008
7/21/2008
8/27/2008
9/29/2008
10/27/2008
12/15/2008
1/12/2009
2/23/2009
3/23/2009
4/15/2009
5/11/2009
6/8/2009
8/3/2009
9/21/2009
10/19/2009
Test Date
LC-50
Mean
M + 2SD
M - 2SD

Ceriodaphnia dubia **Acute Toxicity Testing - Mortality Data**

Client Name: Naperville

Person Conducting Test: RR

Sample Number: NR09-66

Test Start Date: 11/4/09 Time: 1100

Sample Date: 11/2-3/09

Test End Date: 11/6/09 Time: 0945

Test Type: Acute - static

Dilution Water Used: Rec. Stream

Age of Neonates: < 24 hrs.

Hatching Window: < 24 hrs.

Feeding: fed Selenastrum Algae and YCT prior to testing

Test Vessel Size: 30 ml

Test Solution Volume: 20 ml

Sample Treatment ?: Sample strained through 63 um plankton net

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms		
		0 hrs	24 hrs	48 hrs
Rec. Stream Control	4-1	5	5	5
	5-1	5	5	5
	6-1	5	5	5
	7-1	5	5	5
6.25	4-2	5	5	5
	5-2	5	~~4~~ 5	5
	6-2	5	5	5
	7-2	5	5	5
12.5	4-3	5	5	5
	5-3	5	4	4
	6-3	5	5	5
	7-3	5	5	5
25	4-4	5	5	5
	5-4	5	4	4
	6-4	5	4	4
	7-4	5	5	5

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms		
		0 hrs	24 hrs	48 hrs
50	4-5	5	4	4
	5-5	5	4	4
	6-5	5	5	5
	7-5	5	5	5
100	4-6	5	5	5
	5-6	5	4	4
	6-6	5	5	5
	7-6	5	5	5
Lab Control	4-7	5	5	5
	5-7	5	5	5
	6-7	5	5	4
	7-7	5	5	5

nitials:

) hrs= Wre   24 hrs= me   48 hrs= Me

omments:

Ceriodaphnia dubia **Acute toxicity Testing Chemistry Data**

Client Name: Naperville Sample Number: NR09-66

Sample Date: 11/2-3/09 Test Start Date: 11/4/09

Parameter	Time	Rec. Stream Control	6.25	12.5	25	50	100	Lab Control		
		Concentration, % Effluent								
Dissolved Oxygen (mg/l)	Initial	8.7	8.4	8.4	8.3	8.3	8.3	7.7		
	24 hrs									
	48 hrs	7.8	7.7	7.8	7.7	7.6	7.5	7.6		
pH (units)	Initial	7.7	7.7	7.7	7.7	7.7	7.6	7.8		
	24 hrs									
	48 hrs	8.5	8.5	8.6	8.6	8.6	8.5	8.5		
Temp (Cent)	Initial	24.2	24.3	24.6	24.7	24.8	25.2	24.3		
	24 hrs									
	48 hrs	24.3	24.4	24.3	24.4	24.3	24.3	24.4		
Cond (micromhos)	Initial	898	906	917	931	968	1054	309		
NH3 (mg/l)	Initial	0.19					0.19			
T. Cl2 (mg/l)	Initial						<0.1			
Alk (mg/l)	Initial	204					202			
Hard (mg/l)	Initial	291					309			

Initials: Initial mc 24 hr ____ 48 hr mc

Fathead Minnow (*Pimephales promelas*) Acute Toxicity Testing - Mortality Data

Client Name: Naperville | Person Conducting Test: NR

Sample Number: NR09-66 | Test Start Date: 11/4/09 Time: 1200

Sample Date: 11/2-3/09 | Test End Date: 11/8/09 Time: 1290

Test Type: Acute - static renewal | Dilution Water Used: Rec. Stream

Age of Fish: 12 days old | Hatching Window: 24 hrs.

Feeding: fed newly hatched brineshrimp prior to testing and at 46 hrs.

Aeration: none

Test Vessel Size: 600ml | Test Solution Volume: 300 ml

Sample Treatment ?: sample strained through 63 um plankton net

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms				
		0 hrs	24 hrs	48 hrs	72 hrs	96hrs
Rec. Stream Control	1	10	10	10	10	10
	2	10	10	10	10	10
6.25	3	10	10	10	10	10
	4	10	10	10	10	10
12.5	5	10	10	10	10	10
	6	10	10	10	10	10
25	7	10	10	10	10	10
	8	10	10	10	10	10
50	9	10	10	10	10	10
	10	10	10	10	10	10
100	11	10	10	10	10	10
	12	10	10	10	10	9
Lab Control	13	10	10	10	10	10
	14	10	10	10	10	10

Initials:

0 hrs= NR 24 hrs= NR 48 hrs= NR 72 hrs= NR 96 hrs= NR

Fathead Minnow (*Pimephales promelas*) Acute toxicity Testing Chemistry Data

Client Name: Naperville Sample Number: NR09-66

Sample Date: 11/2-3/09 Test Start Date: 11/4/09

Parameter	Time	Rec. Stream Control	Concentration, % Effluent 6.25	12.5	25	50	100	Lab Control		
Dissolved Oxygen (mg/l)	Initial	8.7	8.4	8.4	8.3	8.3	8.3	7.7		
	24 hrs	7.6	8.0	7.7	7.6	7.7	7.3	7.6		
	48 hrs	8.9	8.3	8.3	8.5	8.1	8.2	7.9		
	72 hrs	6.8	6.7	6.7	6.6	6.7	6.8	7.1		
	96 hrs	~~7.6~~ 6.6	6.6	6.7	6.6	6.4	6.3	6.4		
pH (units)	Initial	7.7	7.7	7.7	7.7	7.7	7.6	7.8		
	24 hrs	7.8	7.9	8.0	8.1	8.1	8.1	7.9		
	48 hrs	8.1	8.1	8.2	8.2	8.1	8.0	8.4		
	72 hrs	8.2	8.2	8.2	8.2	8.2	8.2	8.1		
	96 hrs	8.2	8.3	8.4	8.4	8.4	8.4	8.7		
Temp (Cent)	Initial	24.2	24.3	24.6	24.7	24.8	25.2	24.3		
	24 hrs	25.0	24.0	24.8	24.3	24.0	23.9	24.2		
	48 hrs	24.6	24.3	24.6	24.4	24.3	24.3	24.4		
	72 hrs	25.1	25.1	24.5	25.2	24.2	24.1	24.3		
	96 hrs	25.0	25.1	25.1	25.1	24.3	24.4	24.9		
Cond (micromhos)	Initial	898	906	917	931	968	1054	309		
	48 hrs	918	927	926	958	994	1067	312		
NH3 (mg/l)	Initial	0.19					0.19			
T. Cl2 (mg/l)	Initial						<0.1			
Alk (mg/l)	Initial	204					202			
Hard (mg/l)	Initial	291					309			

Initials:

Initial	24 hr	48 hr	72 hr	96 hr
ne	ne	ne	ne	ne

NORTH SHORE SANITARY DISTRICT
POST OFFICE BOX 750, WM. KOEPSEL DR., GURNEE, ILLINOIS 60031
847/623-6060 FAX 847/623-3205 TDD 847/623-6091

August 19, 2009

Mr. Joseph Slevnik
City of Naperville
P.O. Box 3020
Naperville, IL 60566

Dear Mr. Slevnik:

Whole effluent sample was collected at the Springbrook Water Reclamation Center WWTP, NPDES permit No. IL0034061, August 10, 2009 for Whole Effluent Toxicity (WET) analysis. The effluent sample and receiving stream control were delivered on the same day, by City of Naperville personnel, to the laboratory at the North Shore Sanitary District (NSSD).

The Springbrook Water Reclamation District is located at 3712 Plainfield/Naperville Road, Naperville, IL and the receiving water body is the DuPage River.

The requested analysis is 48 hour, acute invertebrate testing using Ceriodaphnia dubia and 96 hour, acute vertebrate testing using fathead minnows. All testing was performed at the NSSD laboratory according to procedures outlined in the NSSD Quality Assurance Manual and EPA/821-R-02-012.

There were no deviations from the referenced method.

The following is a brief summary of the results.

1. The 48 hour invertebrate test using Ceriodaphnia dubia resulted in 95 percent survival of test organisms in whole effluent indicating no apparent acute toxicity.

2. The 96 hour fish testing using fathead minnows (Pimephales promelas) resulted in 100 percent survival of test organisms in whole effluent indicating no apparent acute toxicity.

The results of these tests show that the City of Naperville/Springbrook Water Reclamation Center Whole Effluent collected on August 10, 2009 exhibited no acute toxicity to either test species.

Please feel free to call if you have questions.

Sincerely,

Robert Flood
Aquatic Biologist
NORTH SHORE SANITARY DISTRICT

RF:mjb
cc: Lab Billing File
Bio Lab File

BIOMONITORING CHAIN OF CUSTODY FORM

North Shore Sanitary District
P.O. BOX 750 Wm. Koepsel Dr.
Gurnee, IL 60031
(847) 623-6060

Client Name: CITY of NAPERVILLE

Address 400 S. EAGLE STREET, P.O. BOX 3020, NAPERVILLE, IL 60566

Phone (630) 420-6125 Contact Person: JOSEPH SLEVNIK

Permit Number: IL0034061

Plant Location: SPRINGBROOK WATER RECLAMATION CENTER, 3712 PLAINFIELD/NAPERVILLE Rd, NAPERVILLE, IL 60564

Mean Daily Discharge on Sample Collection Date: 18.706 MGD

Testing Requirements: BIOMONITORING - ACUTE TOXICITY a) FISH-96hr STATIC LC50 BIOASSAY- FLATHEAD MINNOW b) INVERTEBRATE-48 hr STATIC LC50 BIOASSAY-CERIODAPHNIA

Name of Receiving Water Body: DUPAGE RIVER

Effluent Samples
Sample Collector (Print): JOSEPH SLEVNIK Signature: Joseph J. Slevnik

Sample Number	Sample Point	Type of Sample (Grab or Composite)	Collection Date/Time
NR09-48	Discharge 001	Composite (24 Hours)	08-10-09 / 24hr composite (12-12) (12x)

Receiving Water Samples
Sample Collector (Print): JOSEPH SLEVNIK Signature: Joseph J. Slevnik

Sample Number	Sample Point	Type of Sample (Grab or Composite)	Collection Date/Time
NR09-49	DUPAGE RIVER - UPSTREAM of Discharge	GRAB	08-11-09 / 07:45 am

Relinquished By:	Date/Time	Received By:	Date/Time
Joseph J. Slevnik	8-11-09 10:15 am	[illegible]	8/11/09 @ 1015

Dispatched By: _____ Received for Laboratory By: [illegible]

Method of Shipment: _____

Effluent Sample Temperature on Receipt: 6.9°C

Receiving Water Temperature on Receipt: 8.9°C

Lapsed Time from Sample Collection to Delivery at the Laboratory: 10 hrs 15 min

Test Started, Date/Time: 8/11/09 @ 1500

Lapsed Time from Sample Collection to Test Started: 15 hrs.

Whole Effluent Toxicity Reporting: Source of Effluent and Receiving Water

EFFLUENT SAMPLE

Sampling Point:	City of Naperville Springbrook Water Reclamation Center
Sample Collection Method:	24-hour composite
Collection Dates and Times:	8/10/09 0000-2400
Mean Daily Discharge on the Sample Collection Date:	18.706 MGD
Lapsed Time From Sample Collection to Delivery:	10 hours 15 minutes
Lapsed Time From Sample Collection to Analysis Begins:	15 hours
Sample Temperature When Received at the Laboratory:	6.9 deg C (transported on wet ice)

RECEIVING WATER SAMPLE

Sampling Point:	Du Page River
Sample Collection Method:	Grab
Collection Dates and Times:	8/11/09 @ 0745
Sample Temperature When Received at the Laboratory:	8.9 deg C

North Shore Sanitary District
Biomonitoring Laboratory
Standard Testing Protocols for:

The Ceriodaphnia dubia 48 hr. Acute Toxicity Test

1. Test Type:	Static non-renewal
2. Test Duration:	48 hours
3. Test Chamber:	30 ml polystyrene cup
4. Test Solution Volume:	20 ml
5. Age of Test Organism:	juvenile, < 24 hours old (24 hour hatching window)
6. Number of Organisms per Test Chamber:	5
7. Number of Replicates per Concentration:	4
8. Number of Organisms per Concentration:	20
9. Feeding Regime:	Fed *Selenastrum* algae daily (Approx. 4.2 * 10^5 cells/ml in the culture vessel) and YCT
10. Culturing Temperature:	25.0 C +/- 1.0 C
11. Testing Temperature:	25.0 C +/- 1.0 C
12. Test Organism Source:	In house cultures obtained from USEPA Newtown, Ohio
13. End Point of Test:	Death, immotility
14. Test Acceptability Criterion:	90% or greater survival in the controls
15. Sample Holding Time:	36 hrs. after completion of sampling

Ceriodaphnia dubia **Acute Toxicity Test**
Data Summary Sheet

Discharger: City of Naperville Springbrook Water Reclamation Center
3712 Plainfield/Naperville Road
Naperville, IL 60564
Permit Number: IL0034061
Sample Date: August 10, 2009 @ 0000 - 2400
Sample Type: 24 Hour Composite
Analysis Dates: August 11, 2009 @ 1500 - August 13, 2009 @ 1430
Test Organism: Ceriodaphnia dubia <24 hours old, 24 hour hatching window
Test Organism Source: In house cultures
Test Duration: 48 hours
Deviations from Standard Testing Protocol: None

Treatment	Receiving Stream Control	6.25% Effl.	12.5% Effl.	25% Effl.	50% Effl.	100% Effl.	Lab Control
Number of live organisms:	20 of 20	20 of 20	20 of 20	20 of 20	20 of 20	19 of 20	19 of 20
Survival (%):	100	100	100	100	100	95	95
pH :	7.6 - 8.3	7.6 - 8.4	7.7 - 8.4	7.7 - 8.5	7.6 - 8.4	7.4 - 8.4	7.9 - 8.4
Temp. Range (degrees C):	24.1 - 25.2 mean =24.6	24.3 - 24.9 mean =24.6	24.6 - 24.8 mean =24.7	24.6 - 24.9 mean =24.8	24.6 - 24.8 mean =24.7	24.9 - 25.1 mean =25.0	24.0 - 24.8 mean =24.4
Dissolved Oxygen (mg/l):	7.0 - 7.9	7.2 - 7.9	7.2 - 7.9	7.3 - 7.6	7.5 - 7.6	7.7 - 8.4	7.6 - 7.9
Conductivity (umhos):	1099	1092	1087	1070	1043	1014	316
Hardness (mg/l as CaCO3):	314	–	–	–	–	265	–
Total Alkalinity (mg/l as CaCO3):	186	–	–	–	–	160	–
Ammonia Nitrogen (mg/l):	0.23	–	–	–	–	1.48	–
Total Residual Chlorine (mg/l):	–	–	–	–	–	<0.1	–

North Shore Sanitary District
Biomonitoring Laboratory
Standard Testing Protocols for:

The Fathead Minnow (Pimephales promelas) 96 hr. Acute Toxicity Test

1. Test Type:	Static-renewal
2. Test Duration:	96 hours
3. Test Chamber:	600 ml glass beaker
4. Test Solution Volume:	300 ml
5. Age of Test Organism:	larvae, 1-14 days old (24 hr hatching window)
6. Number of Organisms per Test Chamber:	10
7. Number of Replicates per Concentration:	2
8. Number of Organisms per Concentration:	20
9. Feeding Regime:	Before testing, daily feeding of *Artemia* nauplii in an amount sufficient to provide a slight excess 1 hour after feeding. Feed 2 hrs. prior to test solution renewal at 48hrs.
10. Culturing Temperature:	25.0 C +/- 1.0 C
11. Testing Temperature:	25.0 C +/- 1.0 C
12. Test Organism Source:	In house cultures obtained from USEPA Newtown, Ohio
13. End Point of Test:	Death, immotility
14. Test Acceptability Criterion:	90% or greater survival in the controls
15. Sample Holding Time:	36 hrs. after completion of sampling

Fathead Minnow (*Pimephales promelas*) Acute Toxicity Test
Data Summary Sheet

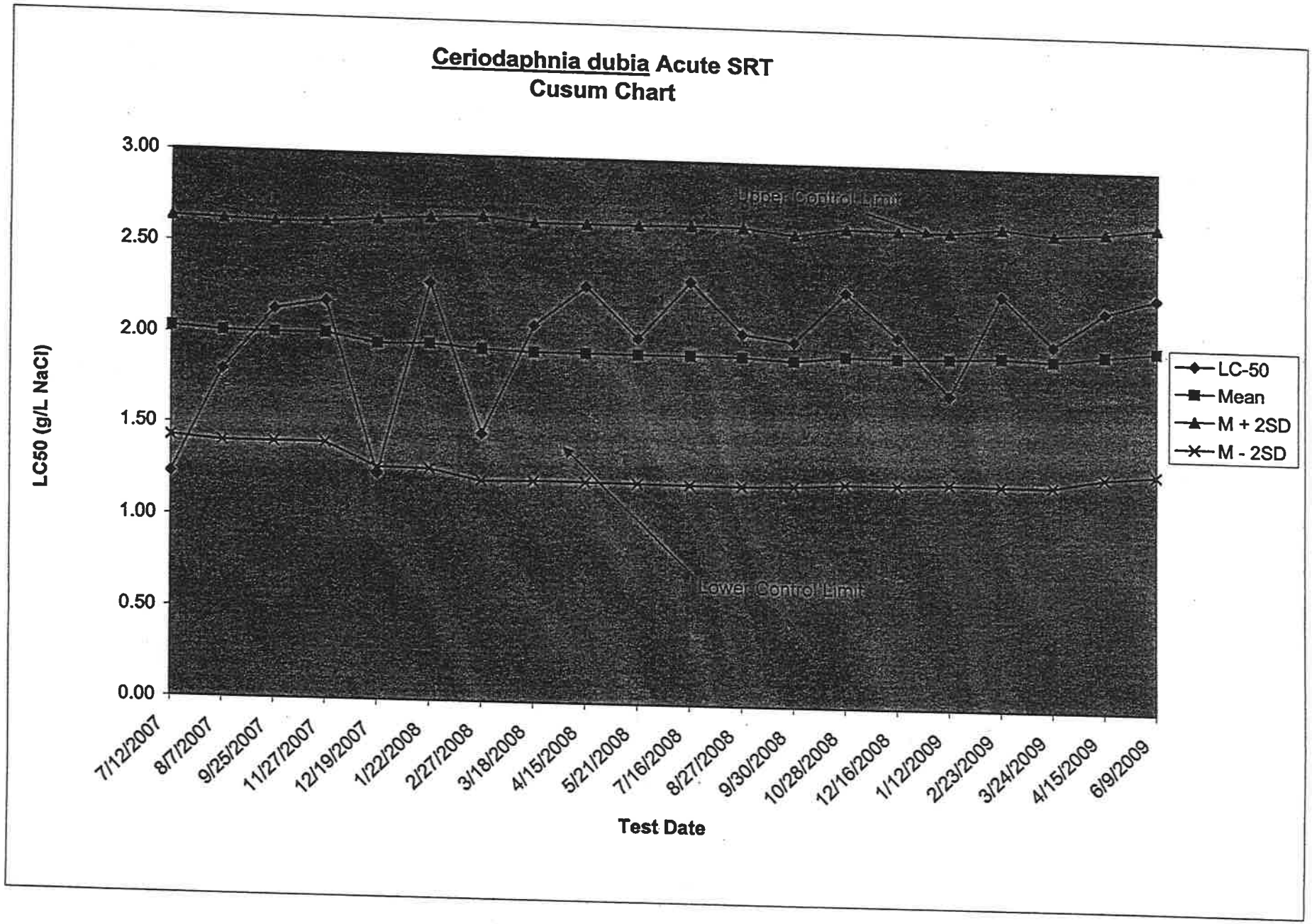
Discharger: City of Naperville Springbrook Water Reclamation Center
3712 Plainfield/Naperville Road
Naperville, IL 60564
Permit Number: IL0034061
Sample Date: August 10, 2009 @ 0000 - 2400
Sample Type: 24 Hour Composite
Analysis Dates: August 11, 2009 @ 1200 - August 15, 2009 @ 1115
Test Organism: Fathead Minnow 14 days old, 24 hour hatching window
Test Organism Source: In house cultures
Test Duration: 96 hours
Deviations from Standard Testing Protocol: None

Treatment	Receiving Stream Control	6.25% Effl.	12.5% Effl.	25% Effl.	50% Effl.	100% Effl.	Lab Control
Number of live organisms:	20 of 20	20 of 20	20 of 20	20 of 20	20 of 20	20 of 20	20 of 20
Survival (%):	100	100	100	100	100	100	100
pH :	7.6 - 8.3	7.6 - 8.3	7.7 - 8.3	7.7 - 8.3	7.6 - 8.3	7.4 - 8.2	7.9 - 8.3
Temp. Range (degrees C):	24.1 - 25.8 mean =25.2	24.3 - 25.4 mean =25.1	24.6 - 26.0 mean =25.3	24.6 - 25.6 mean =25.0	24.4 - 25.6 mean =25.1	24.5 - 25.6 mean =25.1	24.0 - 25.8 mean =25.1
Dissolved Oxygen (mg/l):	7.0 - 8.0	7.2 - 7.8	7.2 - 7.6	7.3 - 7.6	7.2 - 7.7	7.0 - 8.4	7.1 - 7.9
Conductivity (umhos):	1099 - 1116	1092 - 1105	1087 - 1095	1070 - 1087	1043 - 1063	1002 - 1014	315 - 316
Hardness (mg/l as CaCO3):	314	–	–	–	–	265	–
Total Alkalinity (mg/l as CaCO3):	186	–	–	–	–	160	–
Ammonia Nitrogen (mg/l):	0.23	–	–	–	–	1.48	–
Total Residual Chlorine (mg/l):	–	–	–	–	–	<0.1	–

Quality Assurance
Standard Reference Toxicity Testing

Ceriodaphnia dubia **48 hr. Acute SRT**

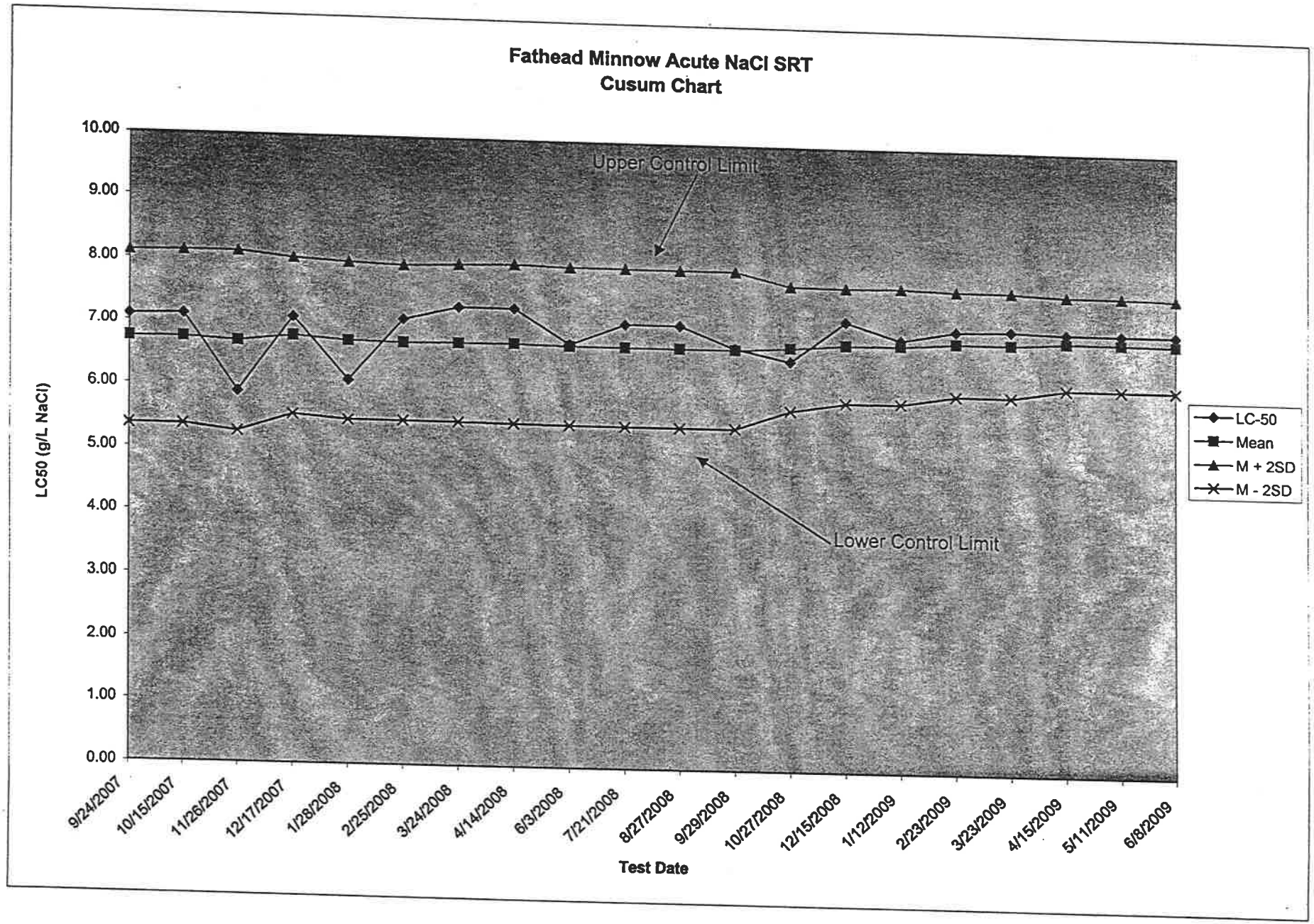
Reference Toxicant:	Sodium chloride (NaCl)
Source:	Fisher Scientific
Date Received:	10/22/03
Lot Number:	035425
Dilution Water:	Laboratory Culture Water
Methods:	Same as listed under Standard Testing Protocols for The Ceriodaphnia dubia 48 hr. Acute Toxicity Test
Most Recent Test:	6/9/2009
Test Results:	LC 50 = 2.30 g/l NaCl Upper Control Chart Limit = 2.69 Lower Control Chart Limit = 1.32 see attached cusum chart


Ceriodaphnia dubia Acute SRT
Cusum Chart
LC50 (g/L NaCl)
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Upper Control Limit
Lower Control Limit
LC-50
Mean
M + 2SD
M - 2SD
7/12/2007
8/7/2007
9/25/2007
11/27/2007
12/19/2007
1/22/2008
2/27/2008
3/18/2008
4/15/2008
5/21/2008
7/16/2008
8/27/2008
9/30/2008
10/28/2008
12/16/2008
1/12/2009
2/23/2009
3/24/2009
4/15/2009
6/9/2009
Test Date

Quality Assurance
Standard Reference Toxicity Testing

Fathead Minnow (*Pimephales promelas*) 96 hr. Acute SRT

Reference Toxicant:	Sodium chloride (NaCl)
Source:	Fisher Scientific
Date Received:	10/22/03
Lot Number:	035425
Dilution Water:	Laboratory Culture Water
Methods:	Same as listed under Standard Testing Protocols for The Fathead Minnow 96 hr. Acute Toxicity Test
Most Recent Test:	6/8/2009
Test Results:	LC 50 = 7.10 g/l NaCl Upper Control Chart Limit = 7.69 Lower Control Chart Limit = 6.21 see attached cusum chart


Fathead Minnow Acute NaCl SRT
Cusum Chart
LC50 (g/L NaCl)
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Upper Control Limit
Lower Control Limit
LC-50
Mean
M + 2SD
M - 2SD
9/24/2007
10/15/2007
11/26/2007
12/17/2007
1/28/2008
2/25/2008
3/24/2008
4/14/2008
6/3/2008
7/21/2008
8/27/2008
9/29/2008
10/27/2008
12/15/2008
1/12/2009
2/23/2009
3/23/2009
4/15/2009
5/11/2009
6/8/2009
Test Date

Ceriodaphnia dubia **Acute Toxicity Testing - Mortality Data**

Client Name: Naperville

Person Conducting Test: RR

Sample Number:

Test Start Date: 8/11/09 Time: 1500

Sample Date: 8/10-11/09

Test End Date: 8/13/09 Time: 1430

Test Type: Acute- static

Dilution Water Used: Rec Stream

Age of Neonates: < 24 hrs.

Hatching Window: < 24 hrs.

Feeding: Fed Selenastrum Algae and YCT prior to testing

Test Vessel Size: ~~65~~ 30 ml

Test Solution Volume: 20 ml

Sample Treatment ?: sample strained through 63 um plankton net

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms		
		0 hrs	24 hrs	48 hrs
Rec. Stream Control	A-1	5	5	5
	B-1	5	5	5
	C-1	5	5	5
	D-1	5	5	5
6.25	A-2	5	5	5
	B-2	5	5	5
	C-2	5	5	5
	D-2	5	5	5
12.5	A-3	5	5	5
	B-3	5	5	5
	C-3	5	5	5
	D-3	5	5	5
25	A-4	5	5	5
	B-4	5	5	5
	C-4	5	5	5
	D-4	5	5	5

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms		
		0 hrs	24 hrs	48 hrs
50	A-5	5	5	5
	B-5	5	5	5
	C-5	5	5	5
	D-5	5	5	5
100	A-6	5	5	5
	B-6	5	5	5
	C-6	5	5	5
	D-6	5	4	4
Lab Control	A-7	5	5	5
	B-7	5	5	4
	C-7	5	5	5
	D-7	5	5	5

Initials:

O hrs= NRL 24 hrs= RL 48 hrs= RL

Comments:

Ceriodaphnia dubia **Acute toxicity Testing Chemistry Data**

Client Name: Naperville Sample Number:

Sample Date: 8/10-11/09 Test Start Date: 8/11/09

Parameter	Time	Rec. Stream Control	Concentration, % Effluent 6.25	12.5	25	50	100	Lab Control		
Dissolved Oxygen (mg/l)	Initial	7.0	7.2	7.2	7.3	7.5	8.4	7.9		
	24 hrs									
	48 hrs	7.9	7.9	7.9	7.6	7.6	7.7	7.6		
pH (units)	Initial	7.6	7.6	7.7	7.7	7.6	7.4	7.9		
	24 hrs									
	48 hrs	8.3	8.4	8.4	8.5	8.4	8.4	8.4		
Temp (Cent)	Initial	24.1	24.3	24.6	24.6	24.6	25.1	24.0		
	24 hrs									
	48 hrs	25.2	24.9	24.8	24.9	24.8	24.9	24.8		
Cond (micromhos)	Initial	1099	1092	1087	1070	1043	1014	316		
NH3 (mg/l)	Initial	0.23					1.48			
T. Cl2 (mg/l)	Initial						<0.1			
Alk (mg/l)	Initial	186					160			
Hard (mg/l)	Initial	314					265			

Initials: Initial NRL 24 hr _____ 48 hr NRL

Fathead Minnow (*Pimephales promelas*) Acute Toxicity Testing - Mortality Data

Client Name: Naperville

Person Conducting Test: RAE

Sample Number:

Test Start Date: 8/11/09 Time: 1200

Sample Date: 8/10-11/09

Test End Date: 8/15/09 Time: 1115

Test Type: Acute - static renewal

Dilution Water Used: Rec. Stream

Age of Fish: 14 days

Hatching Window: 24 hrs.

Feeding: fed newly hatched brine shrimp prior to testing and at 46 hrs.

Aeration: none

Test Vessel Size: 600 ml

Test Solution Volume: 300 ml

Sample Treatment ?: sample strained through 63 um plankton net

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms				
		0 hrs	24 hrs	48 hrs	72 hrs	96hrs
Rec. Stream Control	1	10	10	10	10	10
	2	10	10	10	10	10
6.25	3	10	10	10	10	10
	4	10	10	10	10	10
12.5	5	10	10	10	10	10
	6	10	10	10	10	10
25	7	10	10	10	10	10
	8	10	10	10	10	10
50	9	10	10	10	10	10
	10	10	10	10	10	10
100	11	10	10	10	10	10
	12	10	10	10	10	10
Lab Control	13	10	10	10	10	10
	14	10	10	10	10	10

Initials:

0 hrs= RAE 24 hrs= RAE 48 hrs= RAE 72 hrs= RAE 96 hrs= RAE

Fathead Minnow (*Pimephales promelas*) Acute toxicity Testing Chemistry Data

Client Name: Naperville Sample Number: _____

Sample Date: 8/10-11/09 Test Start Date: 8/11/09

Parameter	Time	Rec. Stream Control	Concentration, % Effluent 6.25	12.5	25	50	100	Lab Control		
Dissolved Oxygen (mg/l)	Initial	7.0	7.2	7.2	7.3	7.5	8.4	7.9		
	24 hrs	7.3	7.6	7.3	7.4	7.2	7.2	7.5		
	48 hrs	8.0	7.8	7.5	7.6	7.7	7.9	7.8		
	72 hrs	7.8	7.6	7.6	7.5	7.3	7.5	7.5		
	96 hrs	7.4	7.2	7.2	7.4	7.2	7.0	7.1		
pH (units)	Initial	7.6	7.6	7.7	7.7	7.6	7.4	7.9		
	24 hrs	8.0	8.1	8.1	8.1	8.1	8.1	8.2		
	48 hrs	8.0	8.1	8.1	8.1	8.0	7.9	8.2		
	72 hrs	8.1	8.2	8.2	8.2	8.2	8.1	8.3		
	96 hrs	8.3	8.3	8.3	8.3	8.3	8.2	8.3		
Temp (Cent)	Initial	24.1	24.3	24.6	24.6	24.6	25.1	24.0		
	24 hrs	25.8	25.4	25.4	25.6	25.5	25.4	25.7		
	48 hrs	25.1	24.8	25.0	24.7	24.4	24.5	24.7		
	72 hrs	25.3	25.4	26.0	25.1	25.6	25.6	25.8		
	96 hrs	25.6	25.4	25.5	25.2	25.5	25.1	25.5		
Cond (micromhos)	Initial	1099	1092	1087	1070	1043	1014	316		
	48 hrs	1116	1105	1095	1087	1063	1002	315		
NH3 (mg/l)	Initial	0.23					1.48			
T. Cl2 (mg/l)	Initial						<0.1			
Alk (mg/l)	Initial	186					160			
Hard (mg/l)	Initial	314					265			

Initials:

Initial	24 hr	48 hr	72 hr	96 hr
RRL	MRL	MRL	MRL	MRL

NORTH SHORE SANITARY DISTRICT
POST OFFICE BOX 750, WM. KOEPSEL DR., GURNEE, ILLINOIS 60031
847/623-6060 FAX 847/623-3205 TDD 847/623-6091

May 21, 2009

Mr. Joseph Slevnik
City of Naperville
P.O. Box 3020
Naperville, IL 60566

Dear Mr. Slevnik:

Whole effluent sample was collected at the Springbrook Water Reclamation Center WWTP, NPDES permit No. IL0034061, May 11, 2009 for Whole Effluent Toxicity (WET) analysis. The effluent sample and receiving stream control were delivered on the same day, by City of Naperville personnel, to the laboratory at the North Shore Sanitary District (NSSD).

The Springbrook Water Reclamation District is located at 3712 Plainfield/Naperville Road, Naperville, IL and the receiving water body is the DuPage River.

The requested analysis is 48 hour, acute invertebrate testing using Ceriodaphnia dubia and 96 hour, acute vertebrate testing using fathead minnows. All testing was performed at the NSSD laboratory according to procedures outlined in the NSSD Quality Assurance Manual and EPA/821-R-02-012.

There were no deviations from the referenced method.

The following is a brief summary of the results.

1. The 48 hour invertebrate test using Ceriodaphnia dubia resulted in 100 percent survival of test organisms in whole effluent indicating no apparent acute toxicity.

2. The 96 hour fish testing using fathead minnows (Pimephales promelas) resulted in 95 percent survival of test organisms in whole effluent indicating no apparent acute toxicity.

The results of these tests show that the City of Naperville/Springbrook Water Reclamation Center Whole Effluent collected on May 11, 2009 exhibited no acute toxicity to either test species.

Please feel free to call if you have questions.

Sincerely,

Robert Flood
Aquatic Biologist
NORTH SHORE SANITARY DISTRICT

RF:mjb
cc: Lab Billing File
Bio Lab File

BIOMONITORING CHAIN OF CUSTODY FORM

North Shore Sanitary District
P.O. BOX 750 Wm. Koepsel Dr.
Gurnee, IL 60031
(847) 623-6060

Client Name: CITY of NAPERVILLE

Address: 400 S. EAGLE STREET, P.O. Box 3020, NAPERVILLE, IL 60566

Phone: (630) 420-6125 Contact Person: JOSEPH SLEVNIK

Permit Number: IL0034061

Plant Location: SPRINGBROOK WATER RECLAMATION CENTER, 3712 PLAINFIELD/NAPERVILLE Rd, NAPERVILLE, IL 60564

Mean Daily Discharge on Sample Collection Date: 22.999 MGD

Testing Requirements: Biomonitoring - Acute Toxicity a) FISH - 96hr STATIC LC50 BIOASSAY - FLATHEAD MINNOW b) INVERTEBRATE 48hr STATIC LC50 BIOASSAY - CERIODAPHNIA

Name of Receiving Water Body: DuPAGE RIVER.

Effluent Samples
Sample Collector (Print): JOSEPH SLEVNIK Signature: Joseph J. Slevnik

Sample Number	Sample Point	Type of Sample (Grab or Composite)	Collection Date/Time
NR09-28	Discharge 001	Composite (24 Hour)	05-11-09 / 24hr Composite 12:00 AM

Receiving Water Samples
Sample Collector (Print): JOSEPH SLEVNIK Signature: Joseph J. Slevnik

Sample Number	Sample Point	Type of Sample (Grab or Composite)	Collection Date/Time
NR09-29	DuPAGE RIVER - upstream of Discharge	GRAB	05-12-09 / 07:50

Relinquished By:	Date/Time	Received By:	Date/Time
Joseph J. Slevnik	5/12/09 10:00 AM	[illegible]	5/12/09 @ 1000

Dispatched By: _____ Received for Laboratory By: [illegible]

Method of Shipment: _____

Effluent Sample Temperature on Receipt: 5.4°C

Receiving Water Temperature on Receipt: 7.3°C

Lapsed Time from Sample Collection to Delivery at the Laboratory: 10 hrs

Test Started, Date/Time: 5/12/09 @ 1400

Lapsed Time from Sample Collection to Test Started: 14 hrs.

Whole Effluent Toxicity Reporting:
Source of Effluent and Receiving Water

EFFLUENT SAMPLE

Sampling Point:	City of Naperville Springbrook Water Reclamation Center
Sample Collection Method:	24-hour composite
Collection Dates and Times:	5/11/09 0000-2400
Mean Daily Discharge on the Sample Collection Date:	22.999 MGD
Lapsed Time From Sample Collection to Delivery:	10 hours
Lapsed Time From Sample Collection to Analysis Begins:	14 hours
Sample Temperature When Received at the Laboratory:	5.4 deg C (transported on wet ice)

RECEIVING WATER SAMPLE

Sampling Point:	Du Page River
Sample Collection Method:	Grab
Collection Dates and Times:	5/12/09 @ 0750
Sample Temperature When Received at the Laboratory:	7.3 deg C

North Shore Sanitary District
Biomonitoring Laboratory
Standard Testing Protocols for:

The Ceriodaphnia dubia 48 hr. Acute Toxicity Test

1. Test Type:	Static non-renewal
2. Test Duration:	48 hours
3. Test Chamber:	30 ml polystyrene cup
4. Test Solution Volume:	20 ml
5. Age of Test Organism:	juvenile, < 24 hours old (24 hour hatching window)
6. Number of Organisms per Test Chamber:	5
7. Number of Replicates per Concentration:	4
8. Number of Organisms per Concentration:	20
9. Feeding Regime:	Fed *Selenastrum* algae daily (Approx. $4.2 * 10^5$ cells/ml in the culture vessel) and YCT
10. Culturing Temperature:	25.0 C +/- 1.0 C
11. Testing Temperature:	25.0 C +/- 1.0 C
12. Test Organism Source:	In house cultures obtained from USEPA Newtown, Ohio
13. End Point of Test:	Death, immotility
14. Test Acceptability Criterion:	90% or greater survival in the controls
15. Sample Holding Time:	36 hrs. after completion of sampling

Ceriodaphnia dubia **Acute Toxicity Test**
Data Summary Sheet

Discharger: City of Naperville Springbrook Water Reclamation Center
3712 Plainfield/Naperville Road
Naperville, IL 60564
Permit Number: IL0034061
Sample Date: May 11, 2009 @ 0000 - 2400
Sample Type: 24 Hour Composite
Analysis Dates: May 12, 2009 @ 1400 - May 14, 2009 @ 1400
Test Organism: Ceriodaphnia dubia <24 hours old, 24 hour hatching window
Test Organism Source: In house cultures
Test Duration: 48 hours
Deviations from Standard Testing Protocol: None

Treatment	Receiving Stream Control	6.25% Effl.	12.5% Effl.	25% Effl.	50% Effl.	100% Effl.	Lab Control
Number of live organisms:	20 of 20	20 of 20	20 of 20	20 of 20	20 of 20	20 of 20	17 of 20
Survival (%):	100	100	100	100	100	100	85
pH :	7.9 - 8.5	8.0 - 8.7	8.0 - 8.8	7.9 - 8.7	7.9 - 8.7	7.4 - 8.7	8.1 - 8.6
Temp. Range (degrees C):	24.4 - 25.4 mean =24.9	24.2 - 25.5 mean =24.8	24.2 - 25.2 mean =24.7	24.2 - 25.3 mean =24.8	24.2 - 25.3 mean =24.8	24.4 - 25.2 mean =24.8	24.8 - 25.2 mean =25.0
Dissolved Oxygen (mg/l):	7.7 - 8.7	7.6 - 8.6	7.7 - 8.7	7.7 - 8.6	7.5 - 8.6	7.6 - 8.5	7.6 - 7.9
Conductivity (umhos):	1250	1237	1243	1239	1210	1159	315
Hardness (mg/l as CaCO3):	376	–	–	–	–	324	–
Total Alkalinity (mg/l as CaCO3):	246	–	–	–	–	200	–
Ammonia Nitrogen (mg/l):	0.05	–	–	–	–	0.30	–
Total Residual Chlorine (mg/l):	–	–	–	–	–	<0.1	–

North Shore Sanitary District
Biomonitoring Laboratory
Standard Testing Protocols for:

The Fathead Minnow (Pimephales promelas) 96 hr. Acute Toxicity Test

1. Test Type:	Static-renewal
2. Test Duration:	96 hours
3. Test Chamber:	600 ml glass beaker
4. Test Solution Volume:	300 ml
5. Age of Test Organism:	larvae, 1-14 days old (24 hr hatching window)
6. Number of Organisms per Test Chamber:	10
7. Number of Replicates per Concentration:	2
8. Number of Organisms per Concentration:	20
9. Feeding Regime:	Before testing, daily feeding of *Artemia* nauplii in an amount sufficient to provide a slight excess 1 hour after feeding. Feed 2 hrs. prior to test solution renewal at 48hrs.
10. Culturing Temperature:	25.0 C +/- 1.0 C
11. Testing Temperature:	25.0 C +/- 1.0 C
12. Test Organism Source:	In house cultures obtained from USEPA Newtown, Ohio
13. End Point of Test:	Death, immotility
14. Test Acceptability Criterion:	90% or greater survival in the controls
15. Sample Holding Time:	36 hrs. after completion of sampling

Fathead Minnow (*Pimephales promelas*) Acute Toxicity Test
Data Summary Sheet

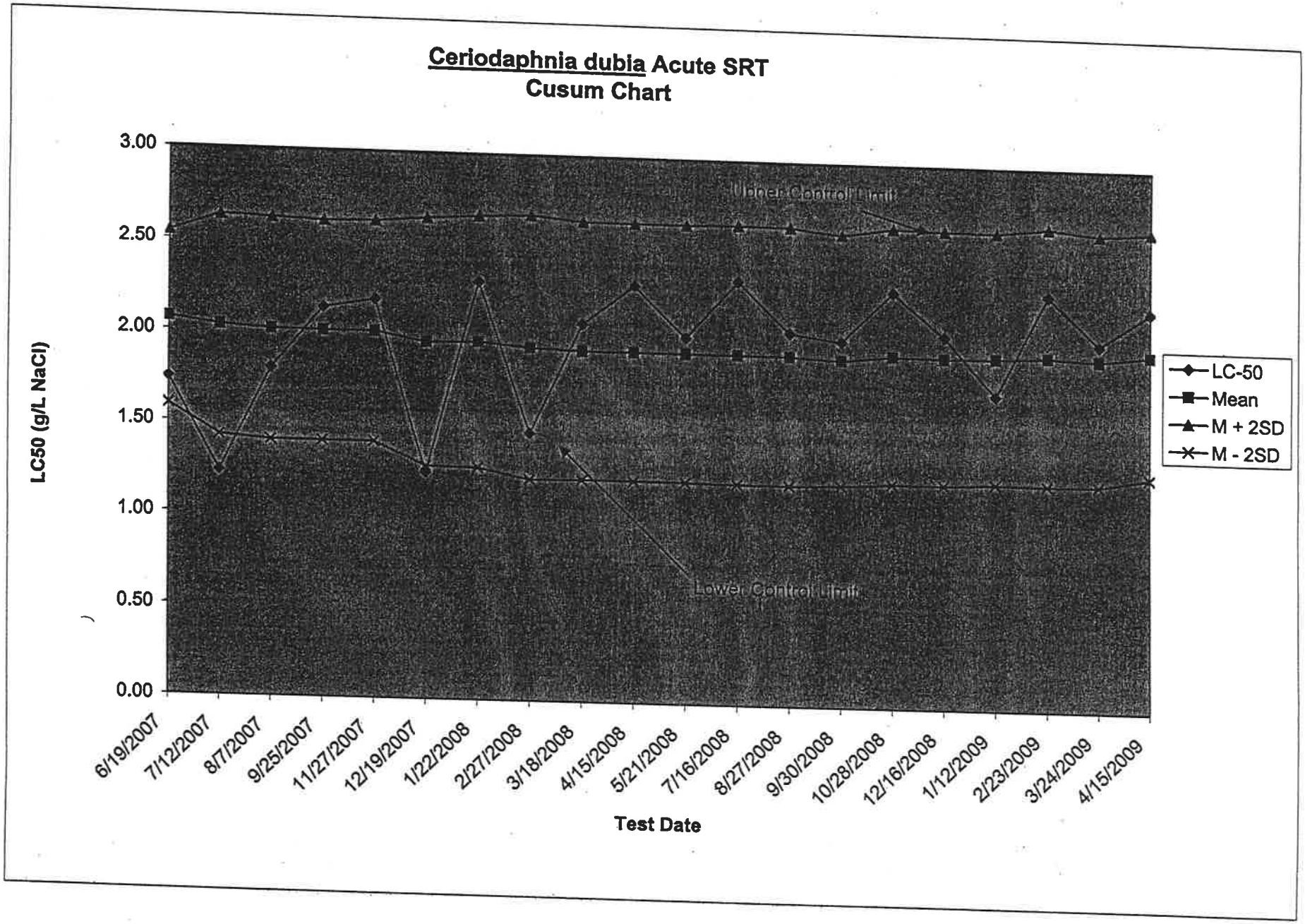
Discharger: City of Naperville Springbrook Water Reclamation Center
3712 Plainfield/Naperville Road
Naperville, IL 60564
Permit Number: IL0034061
Sample Date: May 11, 2009 @ 0000 - 2400
Sample Type: 24 Hour Composite
Analysis Dates: May 12, 2009 @ 1230 - May 16, 2009 @ 1300
Test Organism: Fathead Minnow 12 days old, 24 hour hatching window
Test Organism Source: In house cultures
Test Duration: 96 hours
Deviations from Standard Testing Protocol: None

Treatment	Receiving Stream Control	6.25% Effl.	12.5% Effl.	25% Effl.	50% Effl.	100% Effl.	Lab Control
Number of live organisms:	20 of 20	20 of 20	19 of 20	20 of 20	20 of 20	19 of 20	20 of 20
Survival (%):	100	100	95	100	100	95	100
pH :	7.9 - 8.5	8.0 - 8.6	8.0 - 8.6	7.9 - 8.6	7.9 - 8.6	7.4 - 8.5	8.1 - 8.6
Temp. Range (degrees C):	24.4 - 25.5 mean =25.0	24.2 - 25.7 mean =25.0	24.0 - 25.5 mean =24.7	24.0 - 25.8 mean =24.9	24.0 - 25.8 mean =24.8	24.1 - 25.6 mean =24.8	24.2 - 25.6 mean =25.1
Dissolved Oxygen (mg/l):	7.1 - 8.7	7.0 - 8.6	6.9 -8.7	6.9 - 8.6	6.8 - 8.6	6.6 - 8.5	6.8 - 7.9
Conductivity (umhos):	1250 - 1283	1237 - 1286	1243 - 1254	1239 - 1257	1210 - 1251	1159 - 1203	315 - 325
Hardness (mg/l as CaCO3):	376	–	–	–	–	324	–
Total Alkalinity (mg/l as CaCO3):	246	–	–	–	–	200	–
Ammonia Nitrogen (mg/l):	0.05	–	–	–	–	0.30	–
Total Residual Chlorine (mg/l):	–	–	–	–	–	<0.1	–

Quality Assurance
Standard Reference Toxicity Testing

Ceriodaphnia dubia **48 hr. Acute SRT**

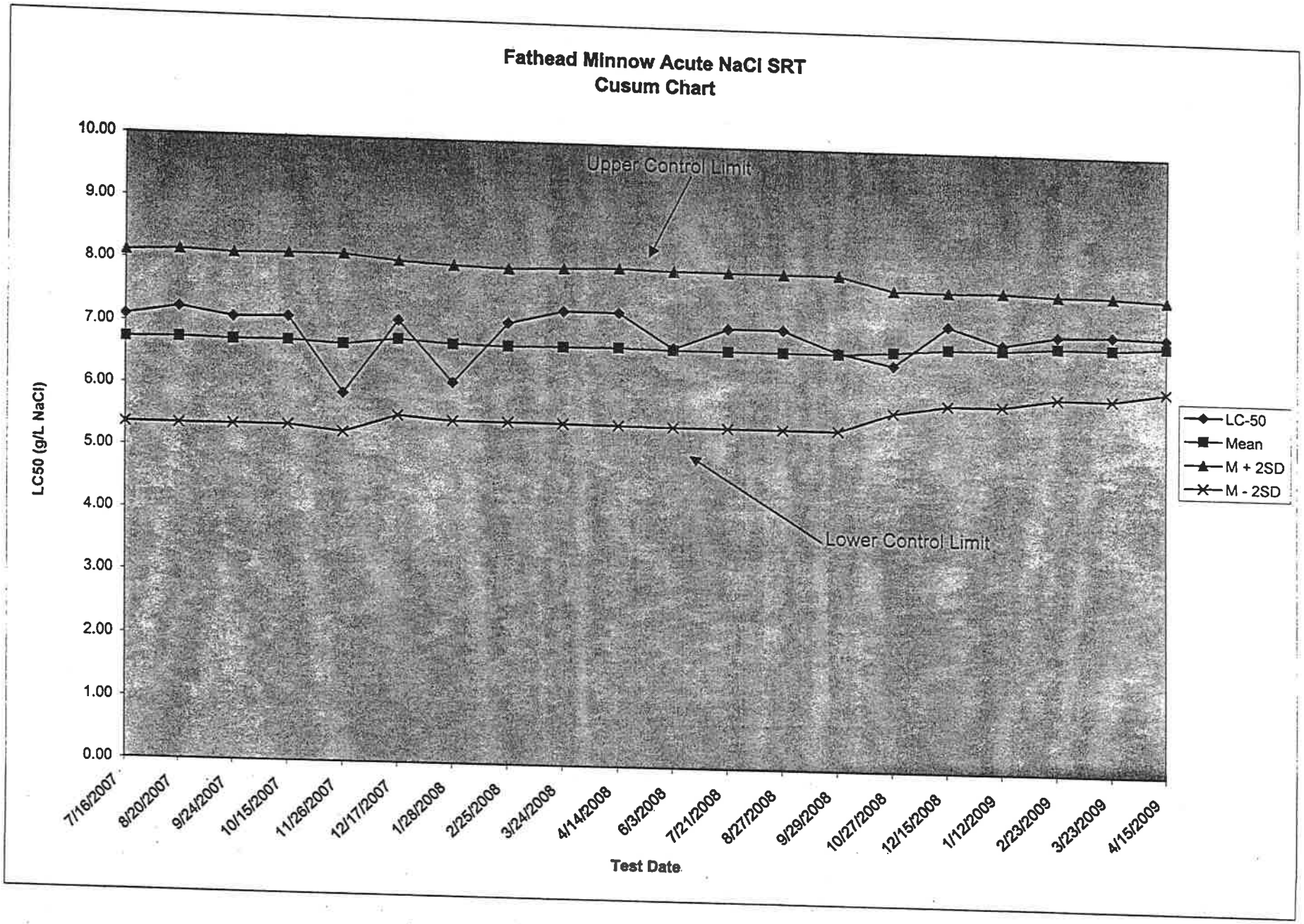
Reference Toxicant:	Sodium chloride (NaCl)
Source:	Fisher Scientific
Date Received:	10/22/03
Lot Number:	035425
Dilution Water:	Laboratory Culture Water
Methods:	Same as listed under Standard Testing Protocols for The Ceriodaphnia dubia 48 hr. Acute Toxicity Test
Most Recent Test:	4/15/2009
Test Results:	LC 50 = 2.22 g/l NaCl Upper Control Chart Limit = 2.66 Lower Control Chart Limit = 1.30 see attached cusum chart


Ceriodaphnia dubia Acute SRT
Cusum Chart
LC50 (g/L NaCl)
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Upper Control Limit
Lower Control Limit
LC-50
Mean
M + 2SD
M - 2SD
6/19/2007
7/12/2007
8/7/2007
9/25/2007
11/27/2007
12/19/2007
1/22/2008
2/27/2008
3/18/2008
4/15/2008
5/21/2008
7/16/2008
8/27/2008
9/30/2008
10/28/2008
12/16/2008
1/12/2009
2/23/2009
3/24/2009
4/15/2009
Test Date

Quality Assurance
Standard Reference Toxicity Testing

Fathead Minnow (*Pimephales promelas*) 96 hr. Acute SRT

Reference Toxicant:	Sodium chloride (NaCl)
Source:	Fisher Scientific
Date Received:	10/22/03
Lot Number:	035425
Dilution Water:	Laboratory Culture Water
Methods:	Same as listed under Standard Testing Protocols for The Fathead Minnow 96 hr. Acute Toxicity Test
Most Recent Test:	4/22/2009
Test Results:	LC 50 = 7.10 g/l NaCl Upper Control Chart Limit = 7.71 Lower Control Chart Limit = 6.20 see attached cusum chart


Fathead Minnow Acute NaCl SRT
Cusum Chart
LC50 (g/L NaCl)
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Upper Control Limit
Lower Control Limit
LC-50
Mean
M + 2SD
M - 2SD
7/16/2007
8/20/2007
9/24/2007
10/15/2007
11/26/2007
12/17/2007
1/28/2008
2/25/2008
3/24/2008
4/14/2008
6/3/2008
7/21/2008
8/27/2008
9/29/2008
10/27/2008
12/15/2008
1/12/2009
2/23/2009
3/23/2009
4/15/2009
Test Date

Ceriodaphnia dubia **Acute Toxicity Testing - Mortality Data**

Client Name: Naperville

Person Conducting Test: RRL

Sample Number:

Test Start Date: 5/12/09 Time: 1400

Sample Date: 5/11-12/09

Test End Date: 5/14/09 Time: 1400

Test Type: Acute - static

Dilution Water Used: Rec. Stream

Age of Neonates: <24 hrs

Hatching Window: <24 hrs

Feeding: fed Selenastrum Algae and YCT prior to testing

Test Vessel Size: 30 ml

Test Solution Volume: 20 ml

Sample Treatment ?: Sample strained through 63 um plankton net

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms		
		0 hrs	24 hrs	48 hrs
Rec. Stream Control	4-1	5	5	5
	5-1	5	5	5
	6-1	5	5	dry 5
	7-1	5	5	5
6.25	4-2	5	5	5
	5-2	5	5	5
	6-2	5	5	5
	7-2	5	5	5
12.5	4-3	5	5	5
	5-3	5	5	5
	6-3	5	5	5
	7-3	5	5	5
25	4-4	5	5	5
	5-4	5	5	5
	6-4	5	5	5
	7-4	5	5	5

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms		
		0 hrs	24 hrs	48 hrs
50	4-5	5	5	5
	5-5	5	5	5
	6-5	5	5	5
	7-5	5	5	5
100	4-6	5	5	5
	5-6	5	5	5
	6-6	5	5	5
	7-6	5	5	5
Lab Control	4-7	5	5	4
	5-7	5	4	4
	6-7	5	5	5
	7-7	5	5	4

Initials:

O hrs= [illegible] 24 hrs= [illegible] 48 hrs= [illegible]

Comments:

Ceriodaphnia dubia **Acute toxicity Testing Chemistry Data**

Client Name: Naperville Sample Number: _____

Sample Date: 5/11-12/09 Test Start Date: 5/12/09

Parameter	Time	Rec. Stream Control	Concentration, % Effluent 6.25	12.5	25	50	100	Lab Control		
Dissolved Oxygen (mg/l)	Initial	8.7	8.6	8.7	8.6	8.6	8.5	7.9		
	24 hrs									
	48 hrs	7.7	7.6	7.7	7.7	7.5	7.6	7.6		
pH (units)	Initial	7.9	8.0	8.0	7.9	7.9	7.4	8.1		
	24 hrs									
	48 hrs	8.5	8.7	8.8	8.7	8.7	8.7	8.6		
Temp (Cent)	Initial	24.4	24.2	24.2	24.2	24.2	24.4	24.8		
	24 hrs									
	48 hrs	25.4	25.5	25.2	25.3	25.3	25.2	25.2		
Cond (micromhos)	Initial	1250	1237	1243	1239	1210	1159	315		
NH3 (mg/l)	Initial	0.05					0.30			
T. Cl2 (mg/l)	Initial						<0.1			
Alk (mg/l)	Initial	246					200			
Hard (mg/l)	Initial	376					324			

Initials: Initial _____ 24 hr _____ 48 hr _____

Fathead Minnow (*Pimephales promelas*) Acute Toxicity Testing - Mortality Data

Client Name: Naperville

Person Conducting Test: RRL

Sample Number:

Test Start Date: 5/12/09 Time: 1230

Sample Date: 5/11-12/09

Test End Date: 5/16/09 Time: 1300

Test Type: Acute - static renewal

Dilution Water Used: Rec. Stream

Age of Fish: 12 days old

Hatching Window: 24 hrs

Feeding: fed newly hatched brine shrimp prior to testing and at 46 hrs.

Aeration: none

Test Vessel Size: 600ml

Test Solution Volume: 300 ml

Sample Treatment ?: sample strained through 63 um plankton net

Concentration or % Effluent	Test Vessel Number	Number of Living Organisms				
		0 hrs	24 hrs	48 hrs	72 hrs	96hrs
Rec. Stream Control	1	10	10	10	10	10
	2	10	10	10	10	10
6.25	3	10	10	10	10	10
	4	10	10	10	10	10
12.5	5	10	9	9	9	9
	6	10	10	10	10	10
25	7	10	10	10	10	10
	8	10	10	10	10	10
50	9	10	10	10	10	10
	10	10	10	10	10	10
100	11	10	10	10	10	10
	12	10	10	10	9	9
Lab Control	13	10	10	10	10	10
	14	10	10	10	10	10

Initials:

0 hrs= RRL 24 hrs= RL 48 hrs= RRL 72 hrs= RRL 96 hrs= RL

Fathead Minnow (*Pimephales promelas*) Acute toxicity Testing Chemistry Data

Client Name: Naperville Sample Number: _____

Sample Date: 5/11-12/09 Test Start Date: 5/12/09

Parameter	Time	Rec. Stream Control	Concentration, % Effluent 6.25	12.5	25	50	100	Lab Control		
Dissolved Oxygen (mg/l)	Initial	8.7	8.6	8.7	8.6	8.6	8.5	7.9		
	24 hrs	7.4	7.2	7.4	7.5	7.5	7.2	7.8		
	48 hrs	7.8	7.9	8.0	7.8	7.8	7.8	7.4		
	72 hrs	7.4	7.3	7.1	7.2	7.1	7.1	7.2		
	96 hrs	7.1	7.0	6.9	6.9	6.8	6.6	6.8		
pH (units)	Initial	7.9	8.0	8.0	7.9	7.9	7.4	8.1		
	24 hrs	8.4	8.5	8.5	8.4	8.4	8.4	8.1		
	48 hrs	8.3	8.3	8.3	8.3	8.2	8.1	8.2		
	72 hrs	8.4	8.5	8.5	8.5	8.5	8.4	8.4		
	96 hrs	8.5	8.6	8.6	8.6	8.6	8.5	8.6		
Temp (Cent)	Initial	24.4	24.2	24.2	24.2	24.2	24.4	24.8		
	24 hrs	25.3	25.4	25.1	25.3	25.4	25.0	25.2		
	48 hrs	24.6	24.5	24.0	24.0	24.0	24.1	24.2		
	72 hrs	25.3	25.0	24.8	25.4	24.8	25.0	25.5		
	96 hrs	25.5	25.7	25.5	25.8	25.8	25.6	25.6		
Cond (micromhos)	Initial	1250	1237	1243	1239	1210	1159	315		
	48 hrs	1283	1286	1254	1257	1251	1203	325		
NH3 (mg/l)	Initial	0.05					0.30			
T. Cl2 (mg/l)	Initial						<0.12			
Alk (mg/l)	Initial	246					200			
Hard (mg/l)	Initial	376					324			

Initials:

Initial	24 hr	48 hr	72 hr	96 hr
NRL	NRL	NRL	NRL	NRL

Appendix B

TCLP, Paint Filter Test, and other Landfill Disposal Tests

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

March 05, 2010

Mr. Joe Slevnik
NAPERVILLE, CITY OF
PO Box 3020
Naperville, IL 60566-7020

Project ID: Sept '09 - Jan -10 Production
First Environmental File ID: 10-0687
Date Received: February 26, 2010

Dear Mr. Joe Slevnik:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 002205: effective 02/06/09 through 02/28/10.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200 or stan@firstenv.com.

Sincerely,

Stan Zaworski
Project Manager

First
Environmental
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Case Narrative

NAPERVILLE, CITY OF

Project ID: **Sept '09 - Jan -10 Production**

First Environmental File ID: **10-0687**

Date Received: **February 26, 2010**

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L-	LCS recovery outside control limits; low bias.
C	Identification confirmed by GC/MS.	M	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis or extraction holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	W	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.

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Analytical Report

Client:	NAPERVILLE, CITY OF	**Date Collected:**	02/26/10
Project ID:	Sept '09 - Jan -10 Production	**Time Collected:**	12:30
Sample ID:	NR10-11 BSB #1 Sept '09 - Jan'10 Prod	**Date Received:**	02/26/10
Sample No:	10-0687-001	**Date Reported:**	03/05/10

Results are reported on an "as received" basis.

Analyte	Result	R.L.	Units	Flags
Percent Total Solids **Method: 2540B**				
Analysis Date: 02/26/10				
Total Solids	18.99		%	
TCLP Volatiles Method 1311 **Method: 5030B/8260B**				
Analysis Date: 03/04/10				
Benzene	< 0.050	0.050	mg/L	
2-Butanone (MEK)	< 0.100	0.100	mg/L	
Carbon tetrachloride	< 0.050	0.050	mg/L	
Chlorobenzene	< 0.050	0.050	mg/L	
Chloroform	< 0.050	0.050	mg/L	
1,2-Dichloroethane	< 0.050	0.050	mg/L	
1,1-Dichloroethene	< 0.050	0.050	mg/L	
Tetrachloroethene	< 0.050	0.050	mg/L	
Trichloroethene	< 0.050	0.050	mg/L	
Vinyl chloride	< 0.100	0.100	mg/L	
TCLP Semi-Volatiles Method 1311 **Method: 8270C**		**Preparation Method 3510C**		
Analysis Date: 03/04/10		Preparation Date: 03/04/10		
1,4-Dichlorobenzene	< 0.10	0.10	mg/L	
2,4-Dinitrotoluene	< 0.10	0.10	mg/L	
Hexachlorobenzene	< 0.10	0.10	mg/L	
Hexachlorobutadiene	< 0.10	0.10	mg/L	
Hexachloroethane	< 0.10	0.10	mg/L	
2-Methylphenol	< 0.10	0.10	mg/L	
3 & 4-Methylphenol	< 0.10	0.10	mg/L	
Nitrobenzene	< 0.10	0.10	mg/L	
Pentachlorophenol	< 0.50	0.50	mg/L	
Pyridine	< 0.50	0.50	mg/L	
2,4,5-Trichlorophenol	< 0.10	0.10	mg/L	
2,4,6-Trichlorophenol	< 0.10	0.10	mg/L	
TCLP Metals Method 1311 **Method: 6010B**		**Preparation Method 3010A**		
Analysis Date: 03/02/10		Preparation Date: 03/02/10		
Arsenic	0.007	0.002	mg/L	
Barium	< 1.0	1.0	mg/L	
Cadmium	< 0.001	0.001	mg/L	
Chromium	0.006	0.001	mg/L	
Copper	< 0.1	0.1	mg/L	
Lead	< 0.002	0.002	mg/L	

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Analytical Report

Client:	NAPERVILLE, CITY OF	**Date Collected:**	02/26/10
Project ID:	Sept '09 - Jan -10 Production	**Time Collected:**	12:30
Sample ID:	NR10-11 BSB #1 Sept '09 - Jan'10 Prod	**Date Received:**	02/26/10
Sample No:	10-0687-001	**Date Reported:**	03/05/10

Results are reported on an "as received" basis.

Analyte	Result	R.L.	Units	Flags
TCLP Metals Method 1311 **Method: 6010B** **Preparation Method 3010A** Analysis Date: 03/02/10 Preparation Date: 03/02/10				
Nickel	< 0.1	0.1	mg/L	
Selenium	< 0.002	0.002	mg/L	
Silver	< 0.001	0.001	mg/L	
Zinc	0.5	0.1	mg/L	
TCLP Metals Method 1311 **Method: 7470A** Analysis Date: 03/03/10				
Mercury	< 0.0005	0.0005	mg/L	
Cyanide, Total **Method: 9010B/9014** Analysis Date: 03/05/10				
Cyanide, Total	0.40	0.10	mg/kg	
Sulfide, Reactive **Method: 7.3.4.2.** Analysis Date: 03/04/10				
Sulfide, Reactive	< 10	10	mg/kg	
Flash Point - Open Cup **Method: 1010M** Analysis Date: 03/03/10				
Flash Point - Open Cup	No Flash @		212 °F	
Paint Filter Test **Method: 9095A** Analysis Date: 03/03/10				
Paint Filter Test	No Liquid			
pH @ 25°C, 1:10 **Method: 4500H+B** Analysis Date: 03/03/10 14:30				
pH @ 25°C, 1:10	7.99		Units	
Phenols **Method: 420.1** Analysis Date: 03/01/10				
Phenols	3.3	2.5	mg/kg	
Polychlorinated biphenyls (PCBs) **Method: 8082** **Preparation Method 3540C** Analysis Date: 03/04/10 Preparation Date: 03/02/10				
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	

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Analytical Report

Client:	NAPERVILLE, CITY OF	**Date Collected:**	02/26/10
Project ID:	Sept '09 - Jan -10 Production	**Time Collected:**	12:30
Sample ID:	NR10-11 BSB #1 Sept '09 - Jan'10 Prod	**Date Received:**	02/26/10
Sample No:	10-0687-001	**Date Reported:**	03/05/10

Results are reported on an "as received" basis.

Analyte		Result	R.L.	Units	Flags
Polychlorinated biphenyls (PCBs)	**Method: 8082**		**Preparation Method 3540C**		
Analysis Date: 03/04/10			Preparation Date: 03/02/10		
Aroclor 1260		< 160	160	ug/kg	
Extractable Organic Halogen	**Method: 9023**				
Analysis Date: 03/04/10					
Extractable Organic Halogens		< 25	25	mg/kg	S

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
E-mail: firstinfo@firstenv.com
IEPA Certification #100292

Company Name: CITY of NAPERVILLE
Street Address: P.O. BOX 3020
City: NAPERVILLE State: IL Zip: 60566
Phone: (630) 420-6125 Fax: (630) 420-4118 e-mail: slevnikj@naperville.il.us
Send Report To: JOSEPH SLEVNIK Via: Fax ☐ e-mail ☒
Sampled By: WAYNE Michalowski

Project I.D.: SEPT '09 - JAN '10 PRODUCTION
P.O. #:

Matrix Codes: S = Soil W = Water O = Other

Date/Time Taken	Sample Description	Matrix	Analyses: Paint Filter Test	Open Cup Flashpoint	TCLP Metals	TCLP Organics (Vol & Semi)	Total PCB's	EOX	pH	Cyanide (Total), Phenol (Total)	Sulfide (Reactive)	Comments	Lab I.D.
2/26/10 12:30	NR10-11 BSB #1 SEPT '09 - JAN '10 Production	O	X	X	X	X	X	X	X	X	X	PLEASE SEE ATTACHED SHEET.	10-06487-001

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6°C Yes ✓ No: ____ °C
Received within 6 hrs. of collection: ____
Ice Present: Yes ✓ No ____

Sample Refrigerated: Yes ____ No ____
Refrigerator Temperature: ____ °C
5035 Vials Frozen: Yes ____ No ____
Freezer Temperature: ____ °C

Containers Received Preserved ☐ Yes ☐ No

Notes and Special Instructions: PRICING PER STAN ZAWORSKI - $975.00

Relinquished By: Joseph J. Slevnik Date/Time 2-26-10 13:35 Received By: [signature] Date/Time 2/26/10 1335
Relinquished By: ____ Date/Time ____ Received By: ____ Date/Time ____

Rev. 4/06

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
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March 12, 2010

Mr. Joe Slevnik
NAPERVILLE, CITY OF
PO Box 3020
Naperville, IL 60566-7020

Project ID: Sept '09-Jan '10 Production
First Environmental File ID: 10-0750
Date Received: March 04, 2010

Dear Mr. Joe Slevnik:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 002468: effective 02/23/2010 through 02/28/2011.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200 or neal@firstenv.com.

Sincerely,

Neal Cleghorn
Project Manager

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IL ELAP / NELAC Accreditation # 100292
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Case Narrative

NAPERVILLE, CITY OF

Project ID: **Sept '09-Jan '10 Production**

First Environmental File ID: **10-0750**

Date Received: **March 04, 2010**

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L-	LCS recovery outside control limits; low bias.
C	Identification confirmed by GC/MS.	M	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis or extraction holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	W	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.

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Analytical Report

Client: NAPERVILLE, CITY OF
Project ID: Sept '09-Jan '10 Production
Sample ID: NR10-11 BSB #1 Sept '09-Jan '10 Prod.
Sample No: 10-0750-001

Date Collected: 03/04/10
Time Collected: 7:50
Date Received: 03/04/10
Date Reported: 03/12/10

Results are reported on an "as received" basis.

Analyte		Result	R.L.	Units	Flags
TCLP Pesticides Method 1311 Analysis Date: 03/12/10	**Method: 8081A**		**Preparation Method 3510C** Preparation Date: 03/10/10		
Chlordane (Total)		< 0.005	0.005	mg/L	
Endrin		< 0.001	0.001	mg/L	
gamma-BHC (Lindane)		< 0.005	0.005	mg/L	
Heptachlor		< 0.005	0.005	mg/L	
Heptachlor epoxide		< 0.005	0.005	mg/L	
Methoxychlor		< 0.005	0.005	mg/L	
Toxaphene		< 0.010	0.01	mg/L	
TCLP Herbicides Method 1311 Analysis Date: 03/12/10	**Method: 8321A**				
2,4-D		< 0.5	0.5	mg/L	S
Silvex (2,4,5-TP)		< 0.5	0.5	mg/L	S
TCLP Extraction Analysis Date: 03/04/10	**Method: 1311**				
TCLP Extraction		Complete			

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
E-mail: firstinfo@firstenv.com
IEPA Certification #100292

Page 1 of 1 pgs

Company Name: CITY OF NAPERVILLE
Street Address: P.O. BOX
City: NAPERVILLE State: IL Zip: 60566
Phone: (630) 420-6125 Fax (630) 420-4118 e-mail: slevnikj@naperville.il.us
Send Report To: JOSEPH SLEVNIK Via: Fax ☐ e-mail ☒
Sampled By: JEFF NIER

Project I.D.: SEPT '09 - JAN '10 PRODUCTION
P.O. #:

Matrix Codes: S = Soil W = Water O = Other

Date/Time Taken	Sample Description	Matrix	Analyses: TCLP PESTICIDES	Analyses: TCLP HERBICIDES	Comments	Lab I.D.
3/4/10 07:50	NK10-11 BSB #1	O	X	X		10-0750-001
	SEPT '09 - JAN '10 PRODUCTION					

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6°C Yes ✓ No__ ____°C
Received within 6 hrs of collection: ____
Ice Present: Yes ✓ No__

Sample Refrigerated: Yes__ No__
Refrigerator Temperature: ____°C
5035 Vials Frozen: Yes__ No__
Freezer Temperature: ____°C

Containers Received Preserved: ☑ Yes ☐ No

Notes and Special Instructions:

Relinquished By: Joseph J. Slevnik Date/Time 03/04/10 8:53 Received By: Date/Time 3/4/10 853
Relinquished By: Date/Time Received By: Date/Time

Rev. 4/06

Appendix C

Platt Drawings and Addresses for Land Application Field Owners

Calendar Year 2009

Field and Owner Summary Table

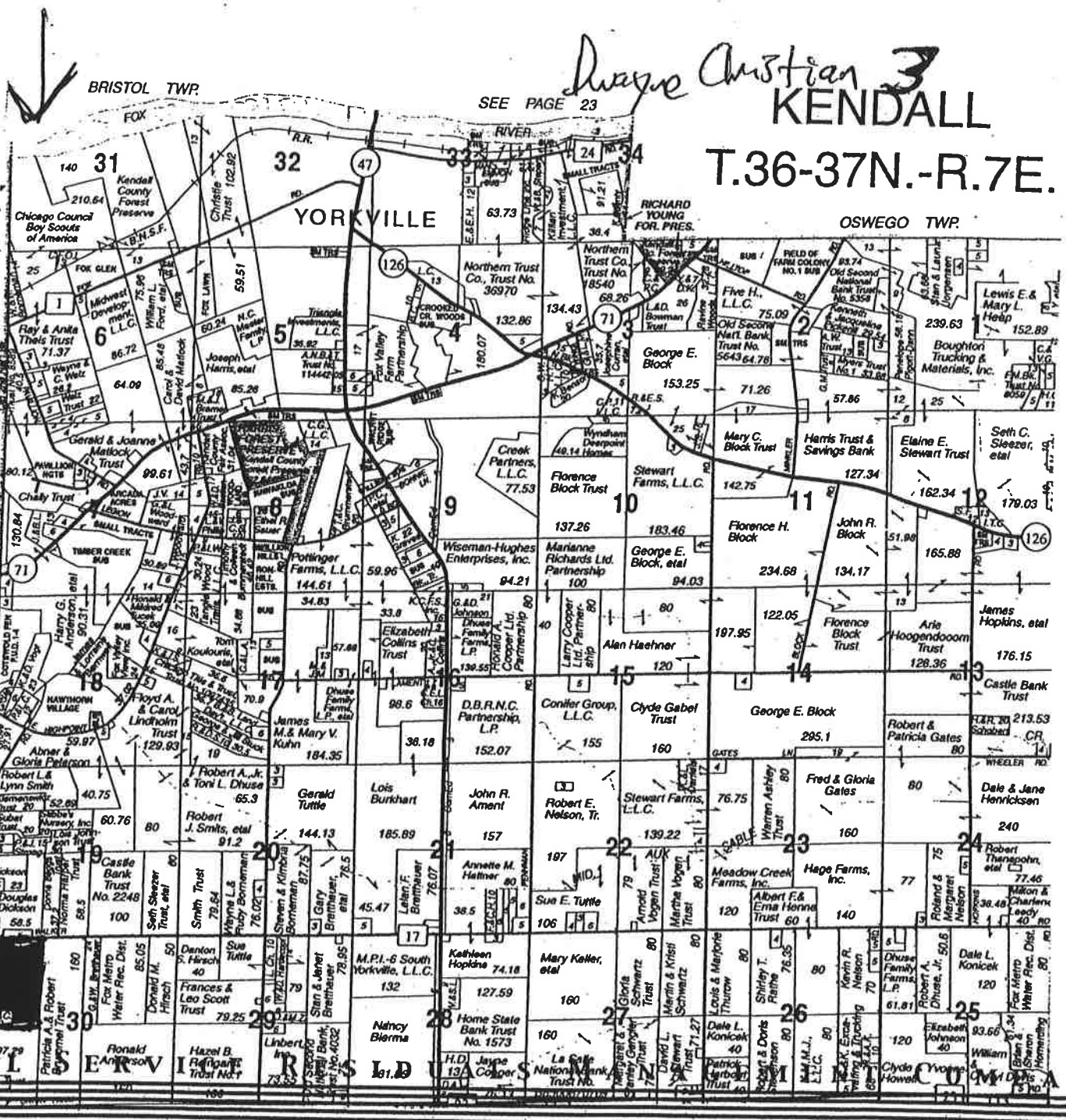
Field(s) Designation	Owner	Owner's Address
Christian Field 3	Duane Christian	non-responsive
Erickson, Field 1	Bruce Erickson	non-responsive
Firrantello, Field 1	Greg Firantello	non-responsive
Fox Field 1	Bill Fox	non-responsive
Loftus Field 3, Loftus Field 4, Loftus Field 14, Loftus Field 17, and Loftus Field 19	Bob Loftus	non-responsive

SPREADING

PLAT MAP

Duane Christian
non-responsive

Field 3
85 Acres
Kendall County
Kendall Township
Section 30



3870 N. Route 71 • Sheridan, IL 60551 • Office 815-695-5667 • Fax 815-695-5770

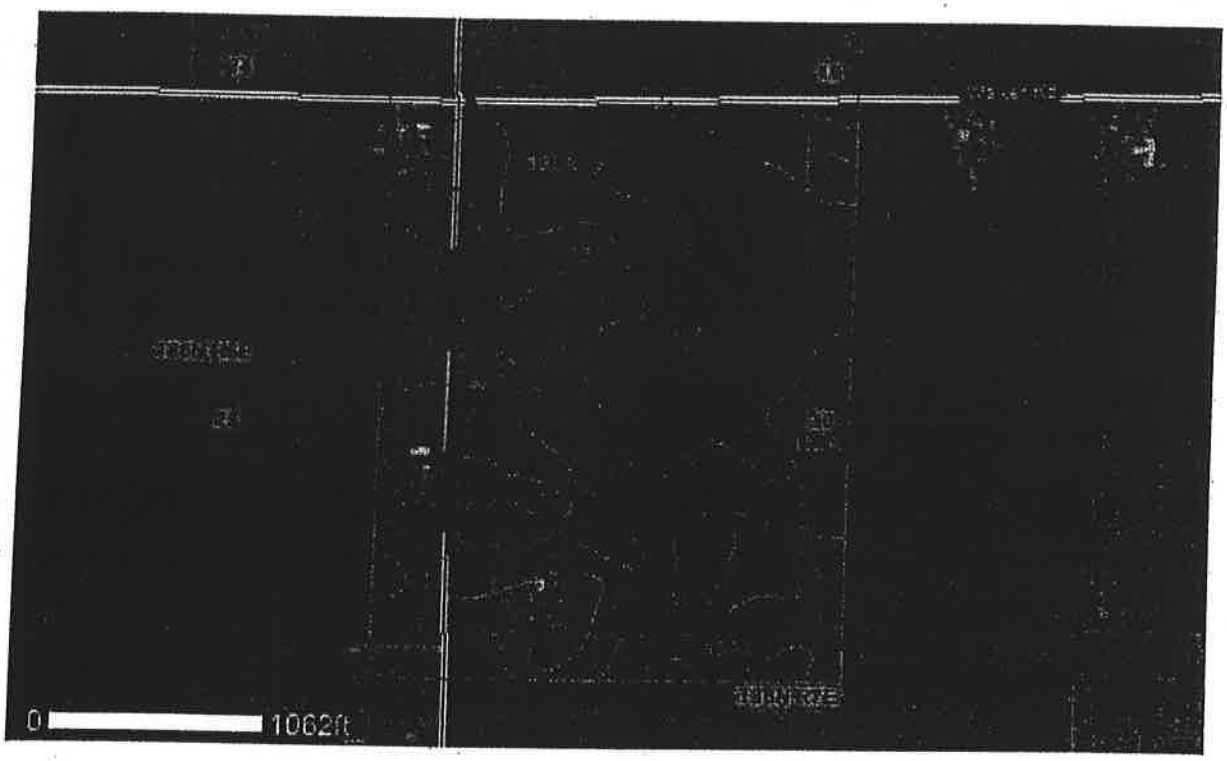
SPREADING

SOIL SERIES

Duane Christian
non-responsive

Field 3
85 Acres
Kendall County
Kendall Township
Section 30

SOIL SERIES	TEXTURE	% SLOPE	PERMEABILITY
Saybrook, 145B	SiL	2-5%	0.6-2.0 in/hr
Brenton, 149A	SiL	0-2%	0.6-2.0 in/hr
Drummer, 152A	SiC	0-2%	0.6-2.0 in/hr
Elburn, 198A	SiL	0-2%	0.6-2.0 in/hr



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SPREADING

PLAT MAP

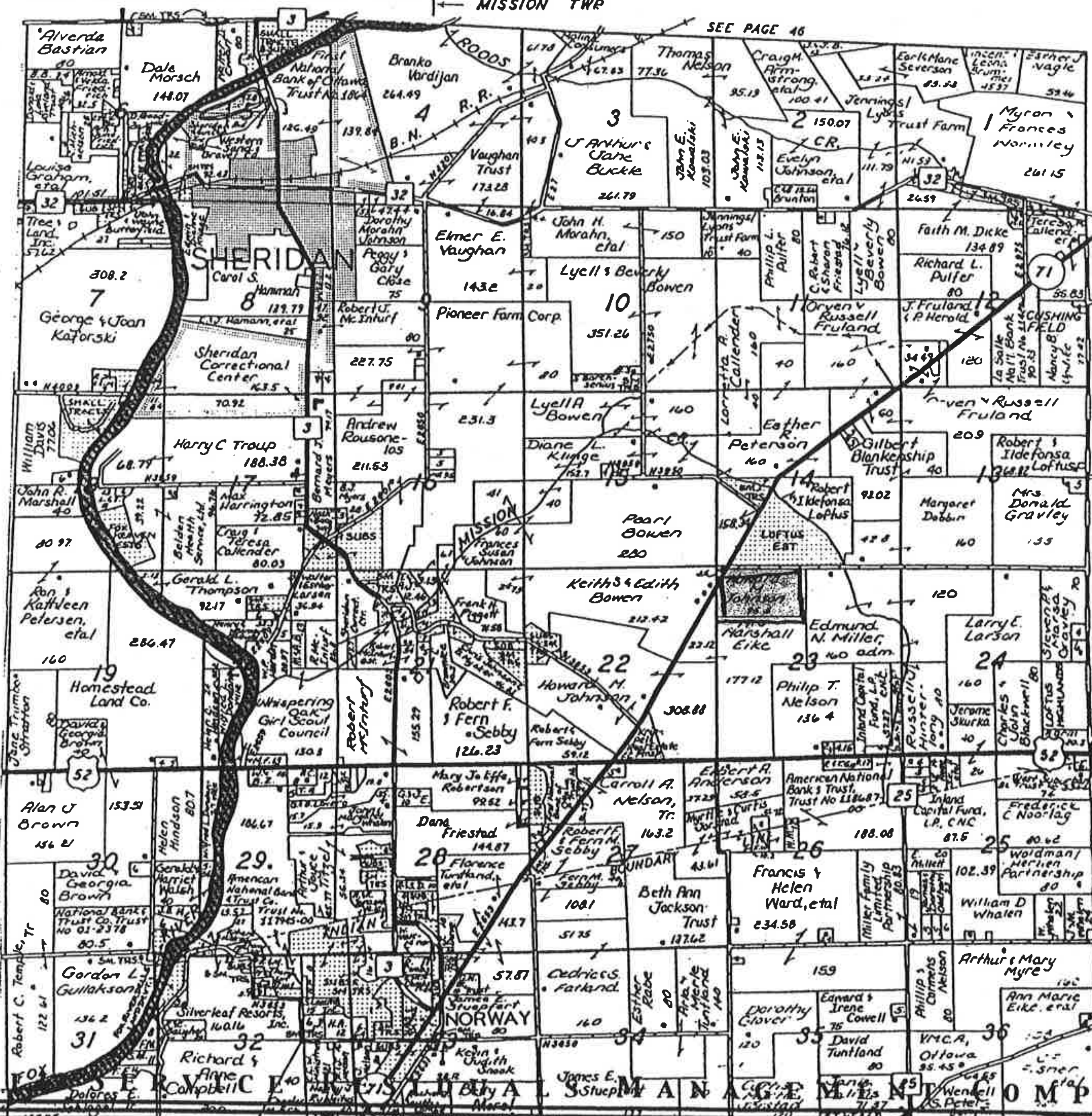
Bruce Erickson

non-responsive [redacted]

Field 1
75 acres
LaSalle County
Mission Township
Section 23

SOUTH PART NORTHVILLE
EAST PART SERENA SOUTH PART MISSION

T. 35 N.–R. 5 E.



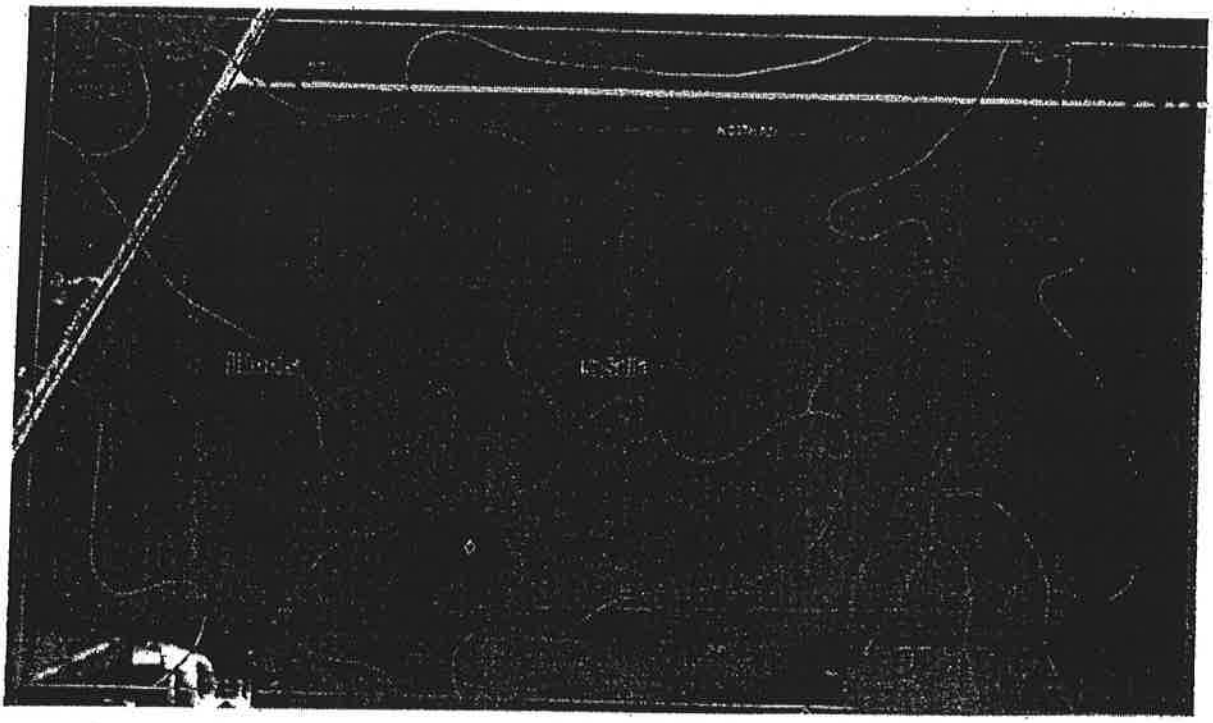
SPREADING

SOIL SERIES

Bruce Erickson
non-responsive

Field 1
75 acres
LaSalle County
Mission Township
Section 23

SOIL SERIES	TEXTURE	% SLOPE	PERMEABILITY
Swygert, 91B	SiCL	2-5 %	0.2-0.6 in/hr
Brenton, 149A	SiL	0-2 %	0.6-2.0 in/hr
Drummer, 152A	SiL	0-2 %	0.6-2.0 in/hr
Elburn, 198A	SiL	0-2 %	0.6-2.0 in/hr
Rutland, 375B	SiL	2-5 %	0.2-0.6 in/hr
Blackberry, 679B	SiL	2-5 %	0.6-2.0 in/hr



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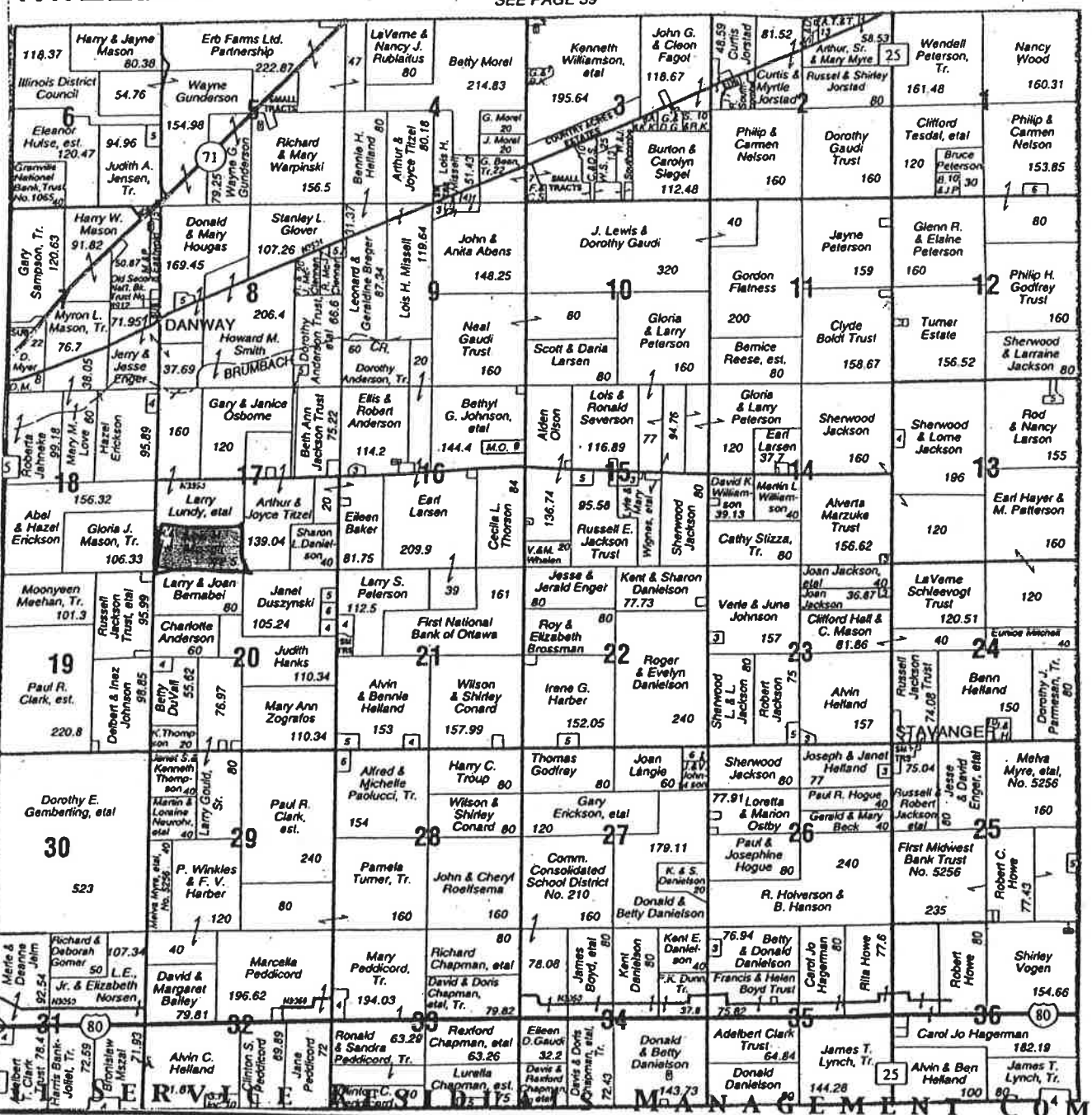
SPREADING

PLAT MAP

Greg Firrantello
non-responsive

Field – Firr 1
70 acres
LaSalle County
Miller Township
Section 17



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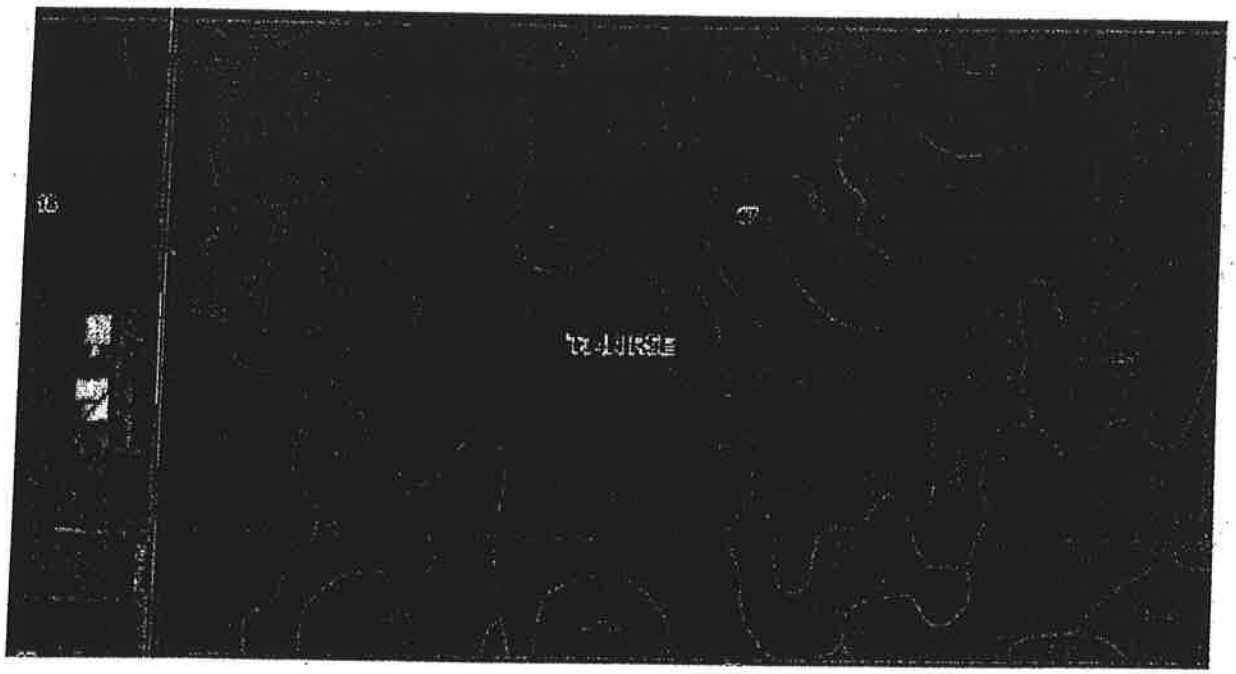
SPREADING

SOIL SERIES

Greg Firrantello
non-responsive

Field – Firr 1
70 acres
LaSalle County
Miller Township
Section 17

SOIL SERIES	TEXTURE	% SLOPE	PERMEABILITY
Elliott, 146B	SiL	2-4%	0.6-2.0 in/hr
Varna, 223C2	SiL	4-6%	0.6-2.0 in/hr
Varna, 223C3	SiCL	4-6%	0.6-2.0 in/hr
Varna, 223D2	SiL	6-12%	0.6-2.0 in/hr
Ashkum, 232A	SiCL	0-2%	0.2-0.6 in/hr
Bryce, 235A	SiC	0-2%	0.6-2.0 in/hr
Peotone, 330A	SiCL	0-2%	0.2-0.6 in/hr
Elpaso, 356A	SiCL	0-2%	0.6-2.0 in/hr



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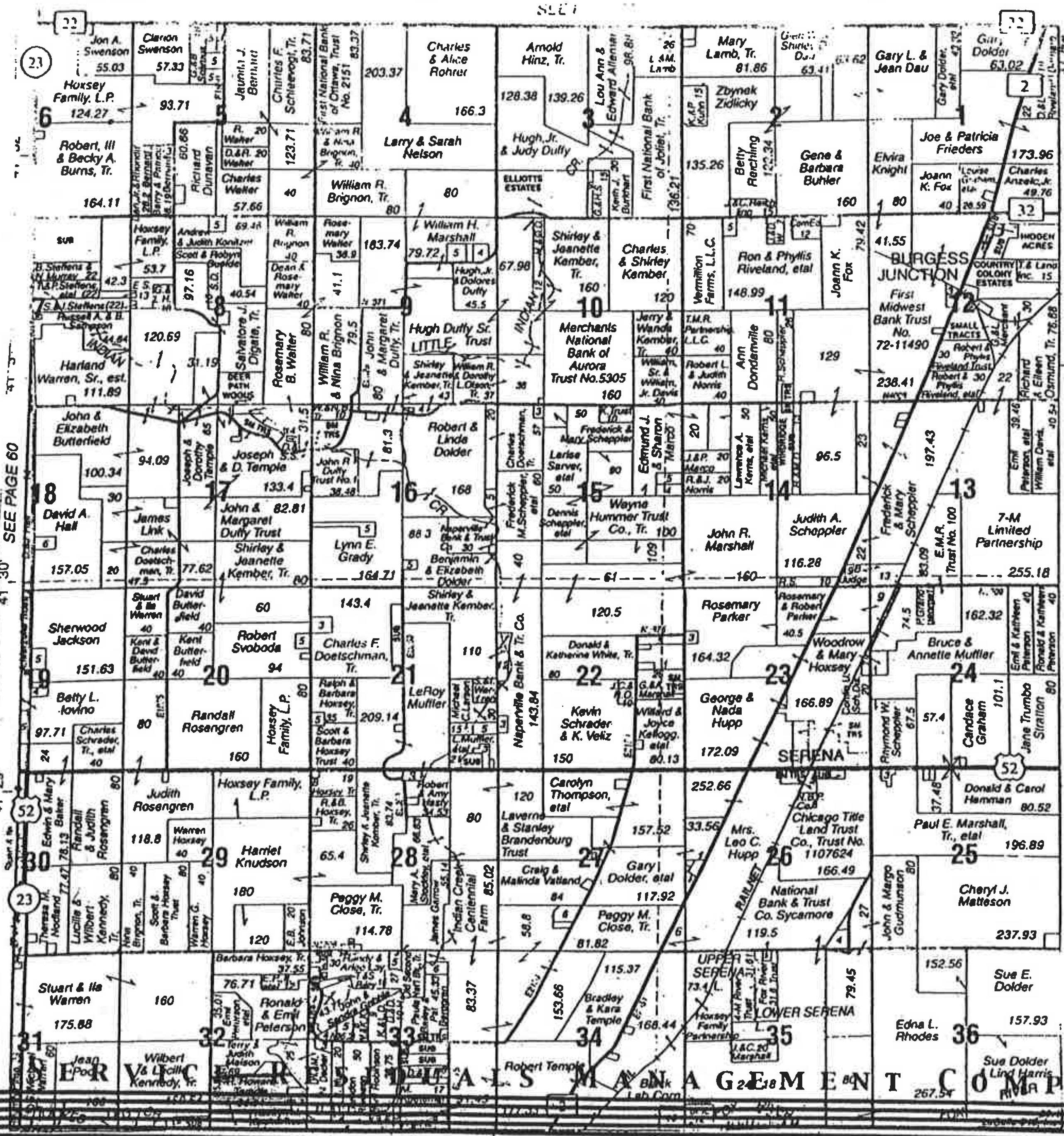
Plat Map

Bill Fox
non-responsive [redacted]

Field 1
48 acres
LaSalle County
Serena Township
Section 32

WEST PART SERENA NORTH PART RUTLAND T.35N.-R.4E.



SPREADING

SOIL SERIES

Bill Fox
non-responsive

Field 1
48 acres
LaSalle County
Serena Township
Section 32

SOIL SERIES	TEXTURE	% SLOPE	PERMEABILITY
Atterberry, 61A	SiL	0-2%	0.6-2.0 in/hr
Virgil, 104A	SiL	0-2%	0.6-2.0 in/hr
Batavia, 105B	SiL	2-5%	0.6-2.0 in/hr
St Charles, 243B	SiL	2-5%	0.6-2.0 in/hr
Greenbush, 675B	SiL	2-5%	0.6-2.0 in/hr

ULL SERVICE RESIDUALS MANAGEMENT COMPANY

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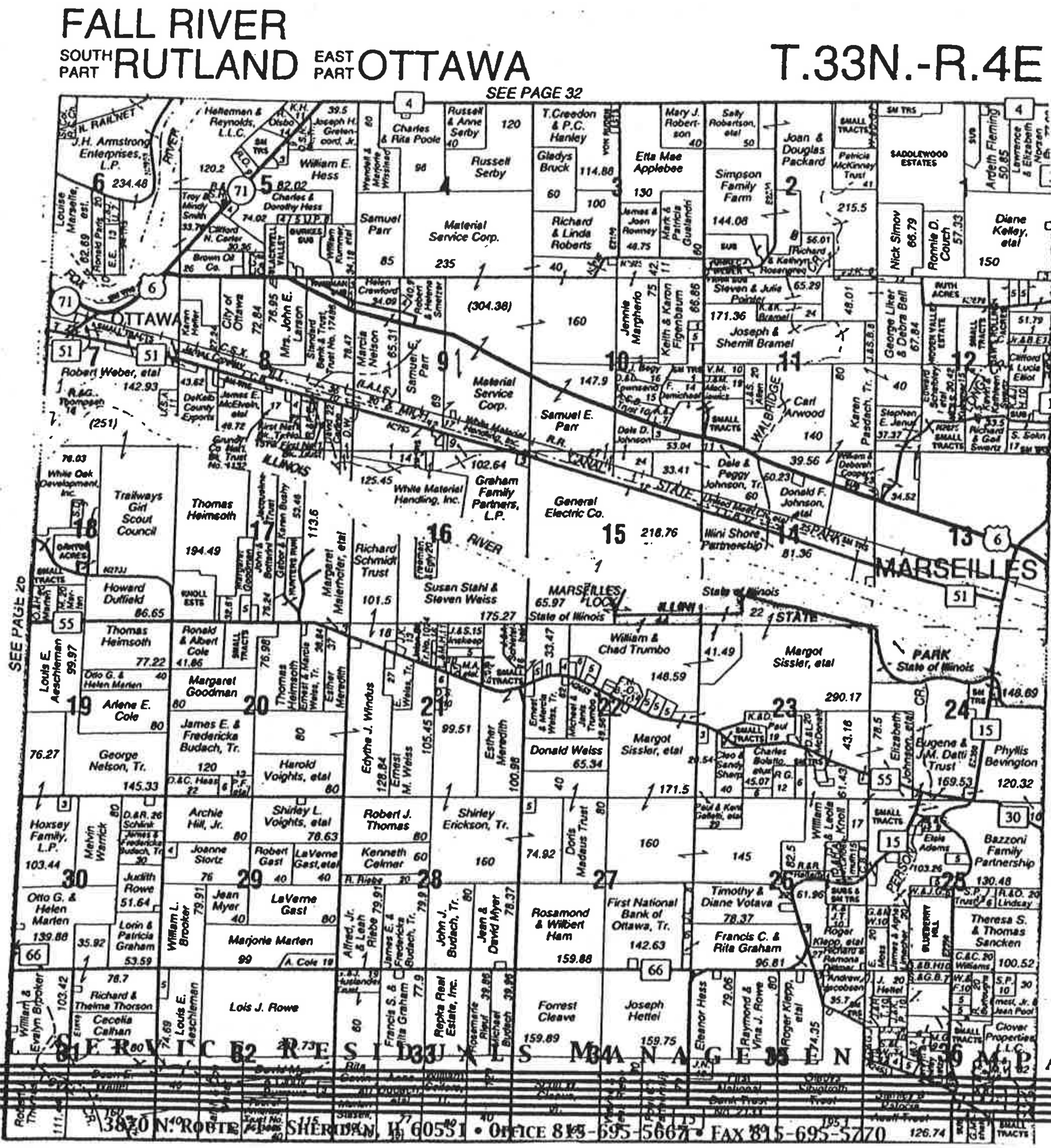
PLAT MAP

Bob Loftus
non-responsive [redacted]

Field 3
60 acres
LaSalle County
Fall River Township
Section 33



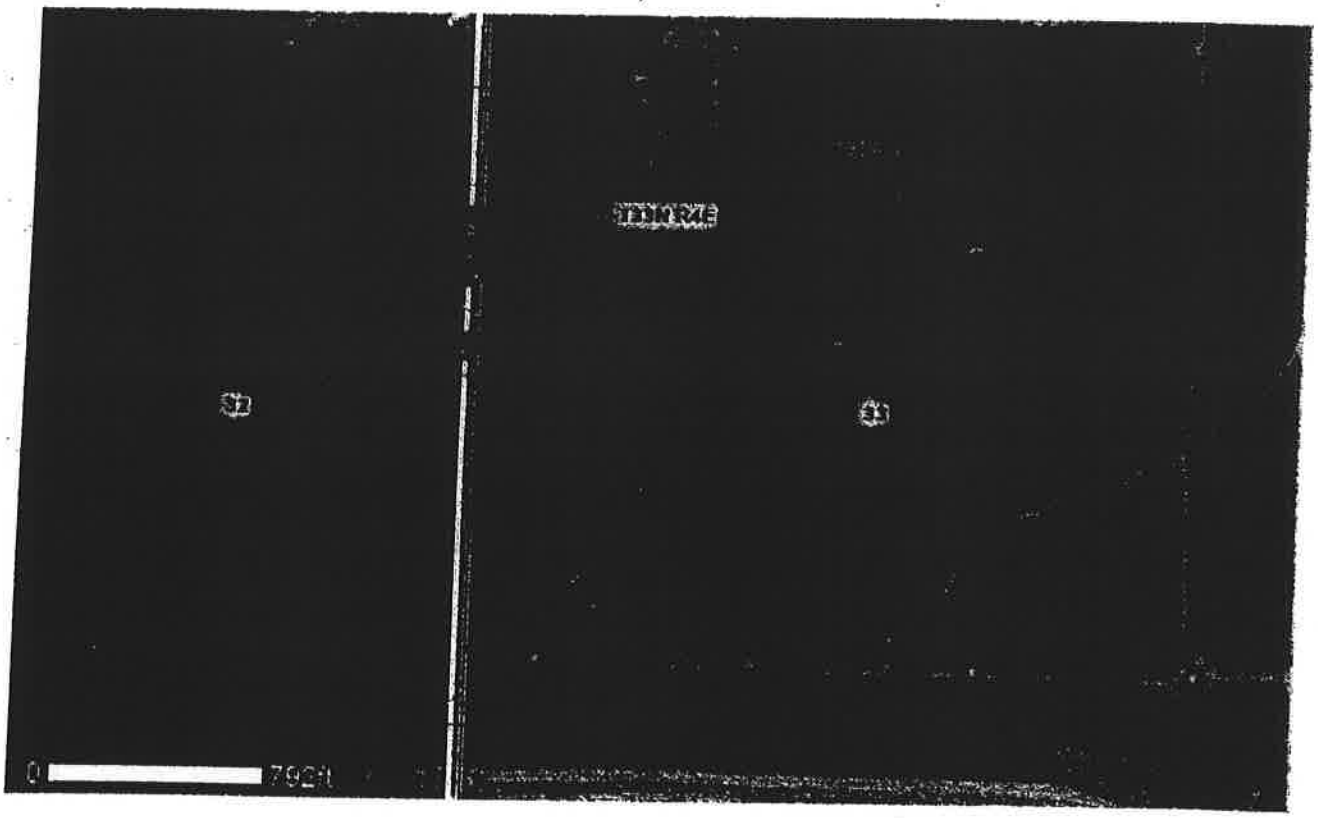
SPREADING

SOIL SERIES

Bob Loftus
non-responsive

Field 3
60 acres
LaSalle County
Fall River Township
Section 33

SOIL SERIES	TEXTURE	% SLOPE	PERMEABILITY
Swygert, 91B	SiCL	2-4 %	0.2- 0.6 in/hr
Bryce, 235A	SiC	0-2 %	0.2-0.6 in/hr
Mokena, 295A	SiL	0-2 %	0.6-2.0 in/hr
Rutland, 375A	SiCL	0-2 %	0.6- 2.0 in/hr
Rutland, 375B	SiCL	2-5 %	0.6- 2.0 in/hr
Streator, 435A	SiCL	0-2 %	0.2-0.6 in/hr



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SPREADING

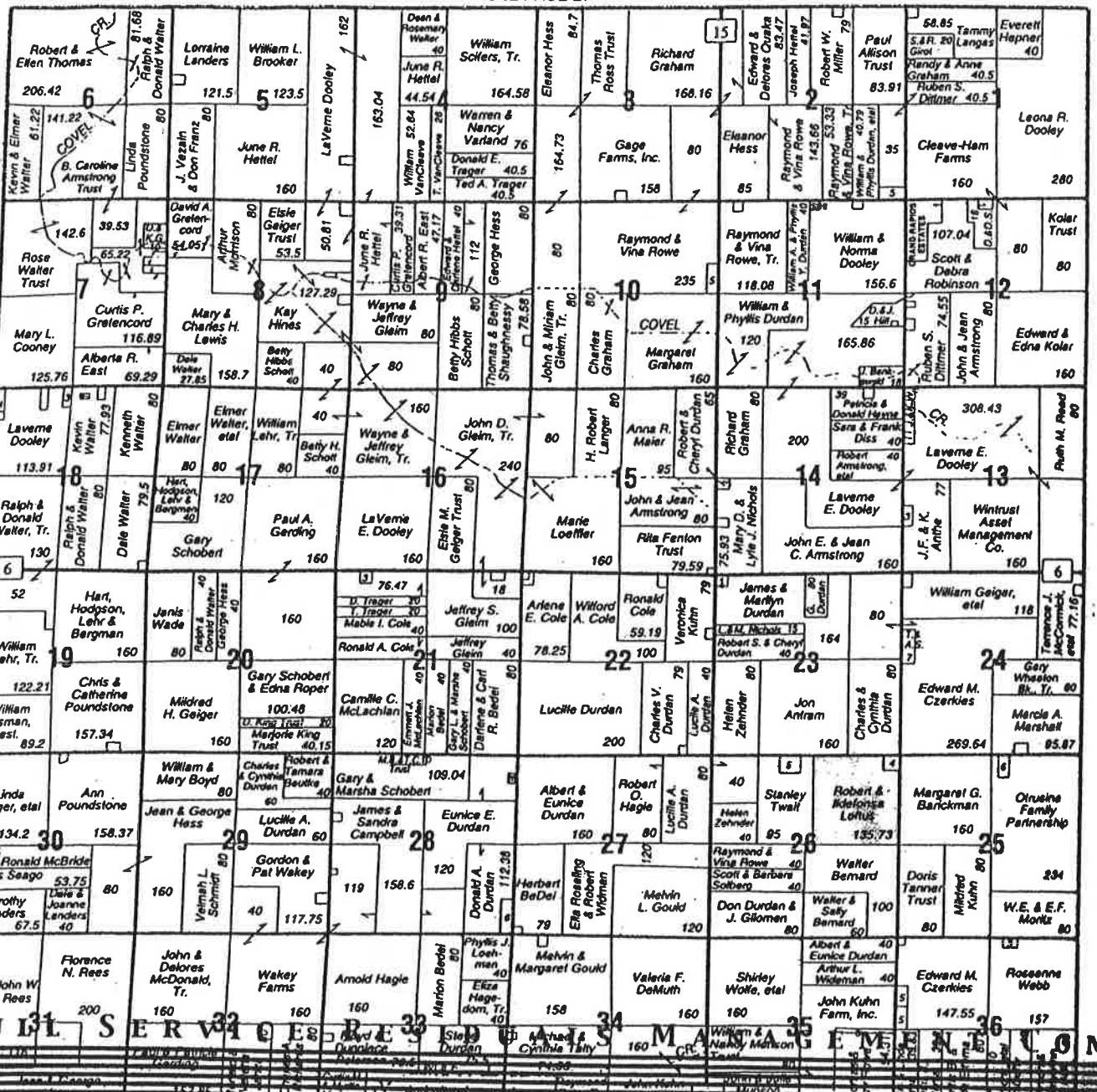
PLAT MAP

Bob Loftus
non-responsive

Field 4
120 acres
LaSalle County
Grand Rapids Township
Section 26

GRAND RAPIDS T.32N.-R.4E.

SEE PAGE 27



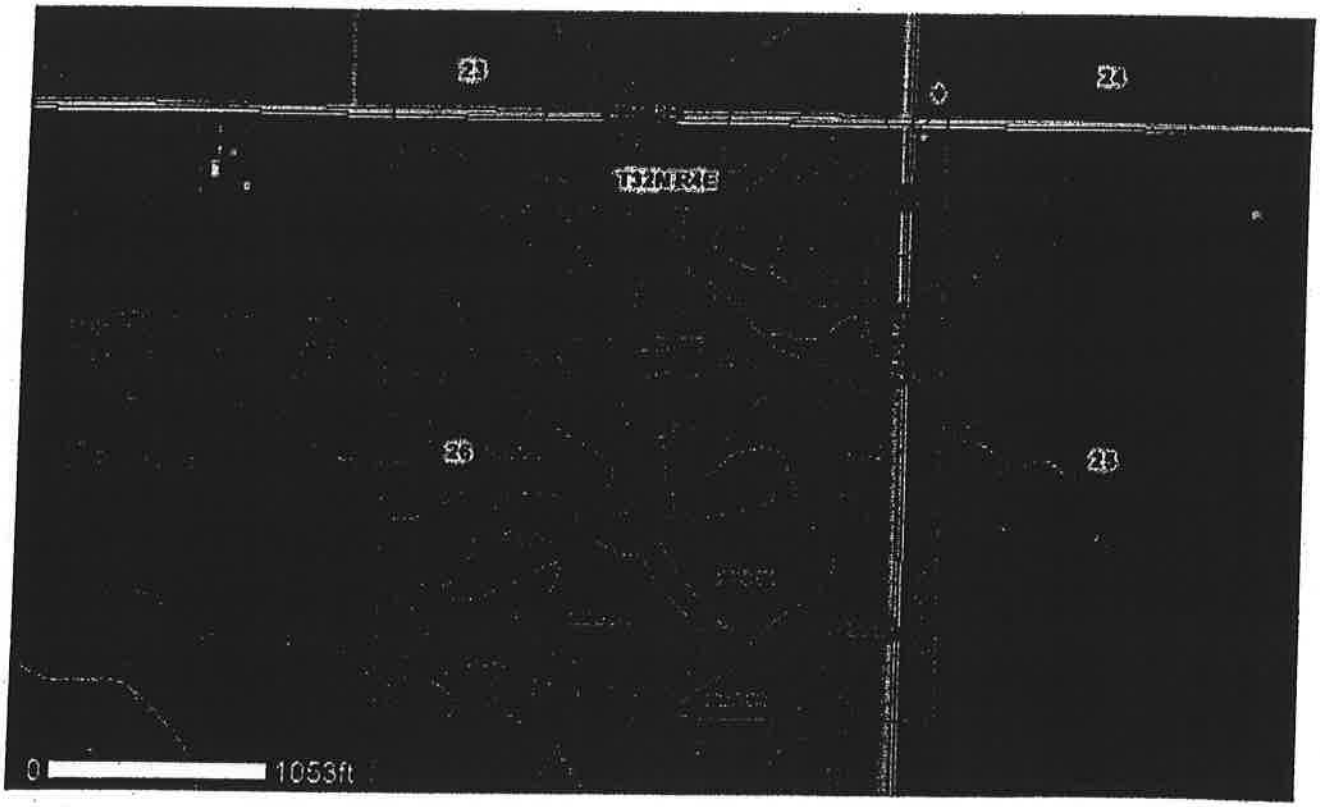
SPREADING

SOIL SERIES

Bob Loftus
non-responsive

Field 4
120 acres
LaSalle County
Grand Rapids Township
Section 26

SOIL SERIES	TEXTURE	% SLOPE	PERMEABILITY
Swygert, 91B	SiCL	2-4 %	0.2- 0.6 in/hr
Swygert, 91C3	SiCL	4-6 %	0.2-0.6 in/hr
Elliott, 146B	SiL	2-4 %	0.6-2.0 in/hr
Elliot, 146B2	SiCL	2-4 %	0.6-2.0 in/hr
Drummer, 152A	SiCL	0-2 %	0.6-2.0 in/hr
Varna, 223C2	SiL	4-6 %	0.6-2.0 in/hr
Varna, 223C3	SiCL	4-6 %	0.2-0.6 in/hr
Varna, 223D3	SiCL	6-12 %	0.2-0.6 in/hr
Ashkum, 232A	SiCL	0-2 %	0.2-0.6 in/hr
Bryce, 235A	SiC	0-2 %	0.2-0.6 in/hr
Mokena, 295A	SiL	0-2 %	0.6-2.0 in/hr



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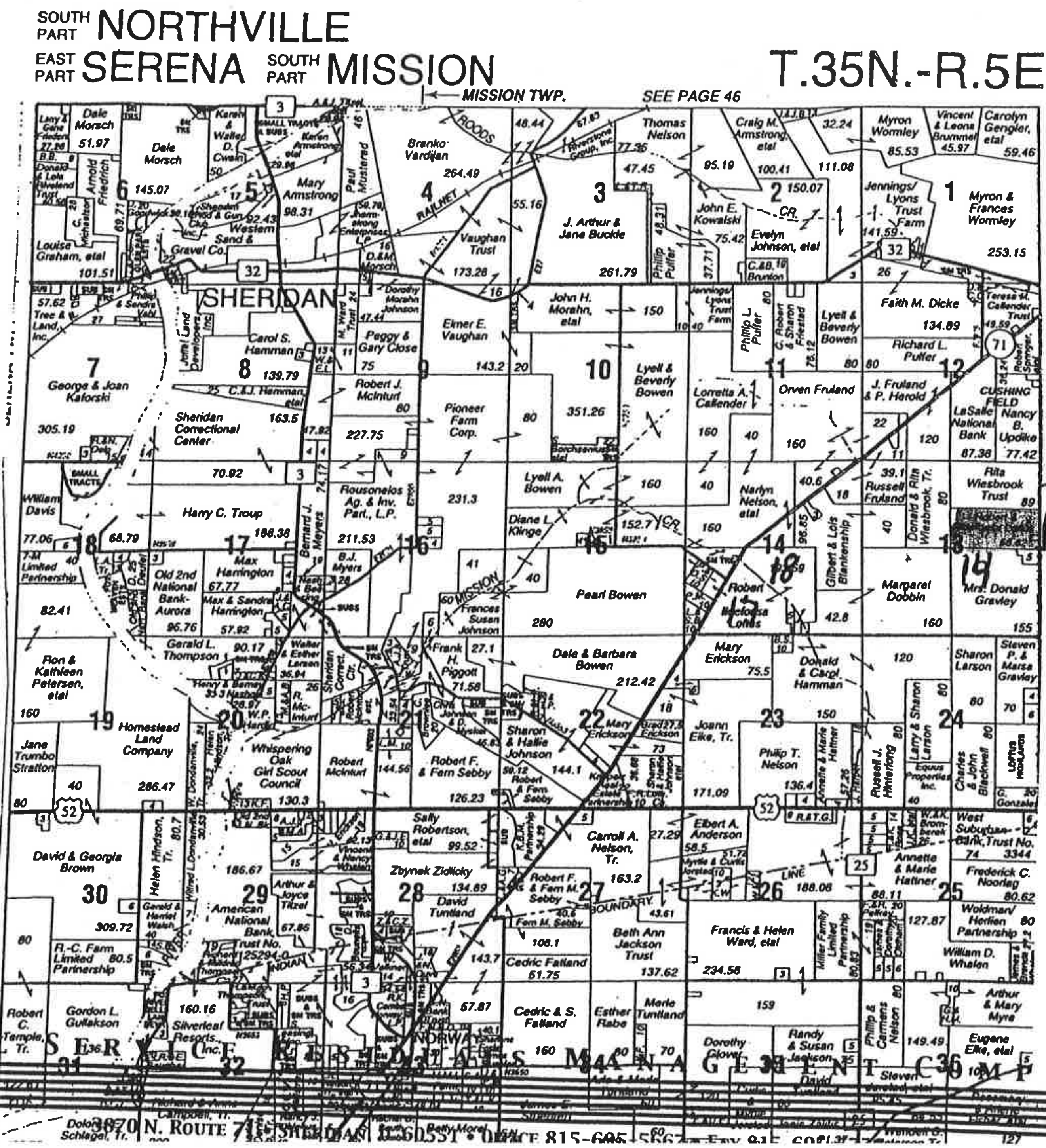
SPREADING

Plat Map

Bob Loftus
[redacted]

Field 14
40 acres
Kendall County
Big Grove Township
Section 13



SPREADING

SOIL SERIES

Bob Loftus
non-responsive

Field 14
40 acres
Kendall County
Big Grove Township
Section 13

SOIL SERIES	TEXTURE	% SLOPE	PERMEABILITY
Swygert, 91A	SiCL	0-2 %	0.2- 0.6 in/hr
Swygert, 91B	SiCL	2-4 %	0.2- 0.6 in/hr
Rutland, 375A	SiCL	0-2 %	0.6- 2.0 in/hr
Rutland, 375B	SiCL	2-5 %	0.6- 2.0 in/hr

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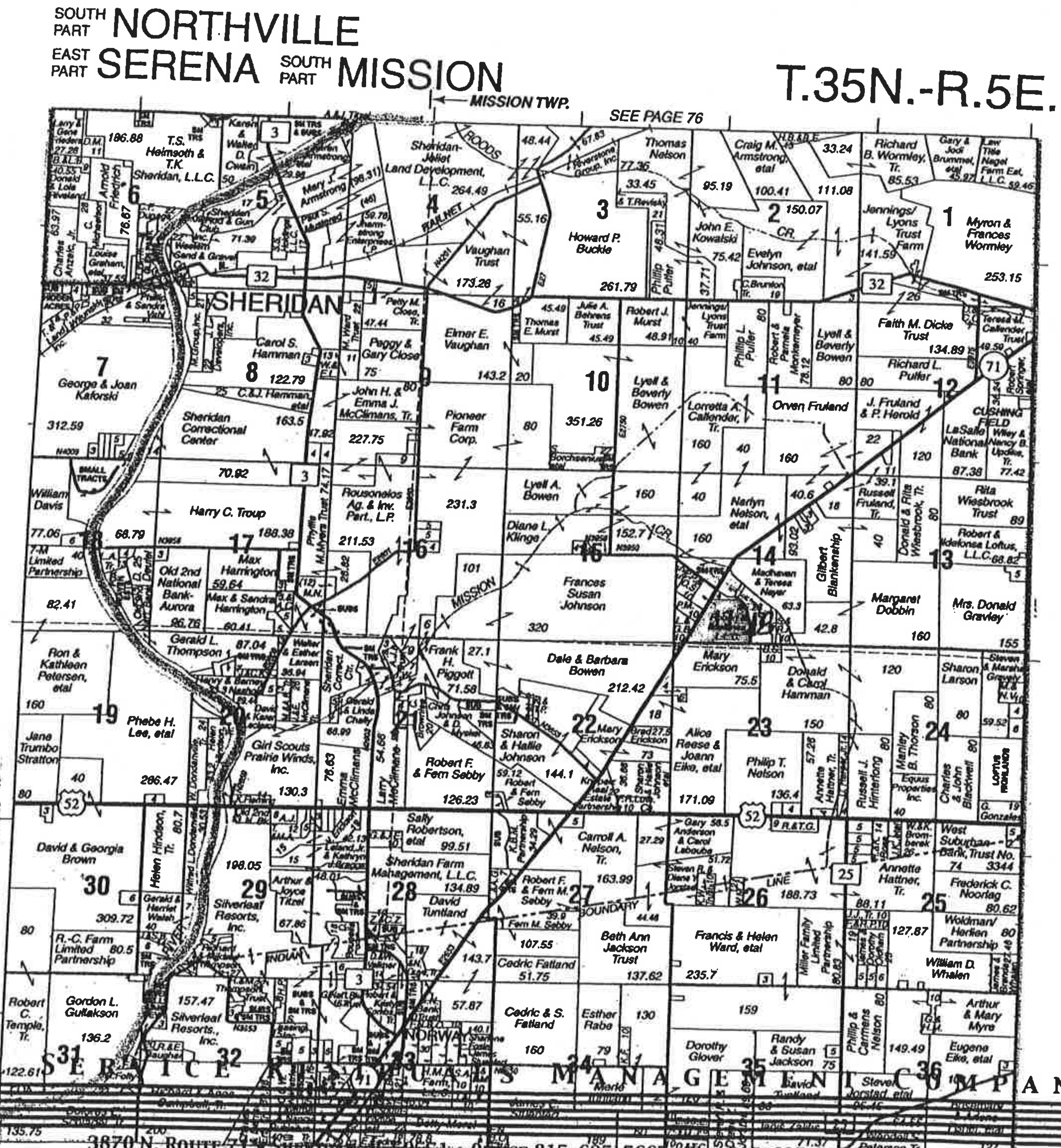
SPREADING

Plat Map

Bob Loftus
[redacted]

Field 17
60 acres
LaSalle County
Mission Township
Section 14



SPREADING

SOIL SERIES

Bob Loftus
non-responsive

Field 17
60 acres
LaSalle County
Mission Township
Section 14

SOIL SERIES	TEXTURE	% SLOPE	PERMEABILITY
Rutland, 375B	SiCL	2-5%	0.6-2.0 in/hr
Mona, 448C2	SiL	5-10%	0.6-2.0 in/hr
Blackberry, 679B	SiL	2-5%	0.6-2.0 in/hr

SPREADING

PLAT MAP

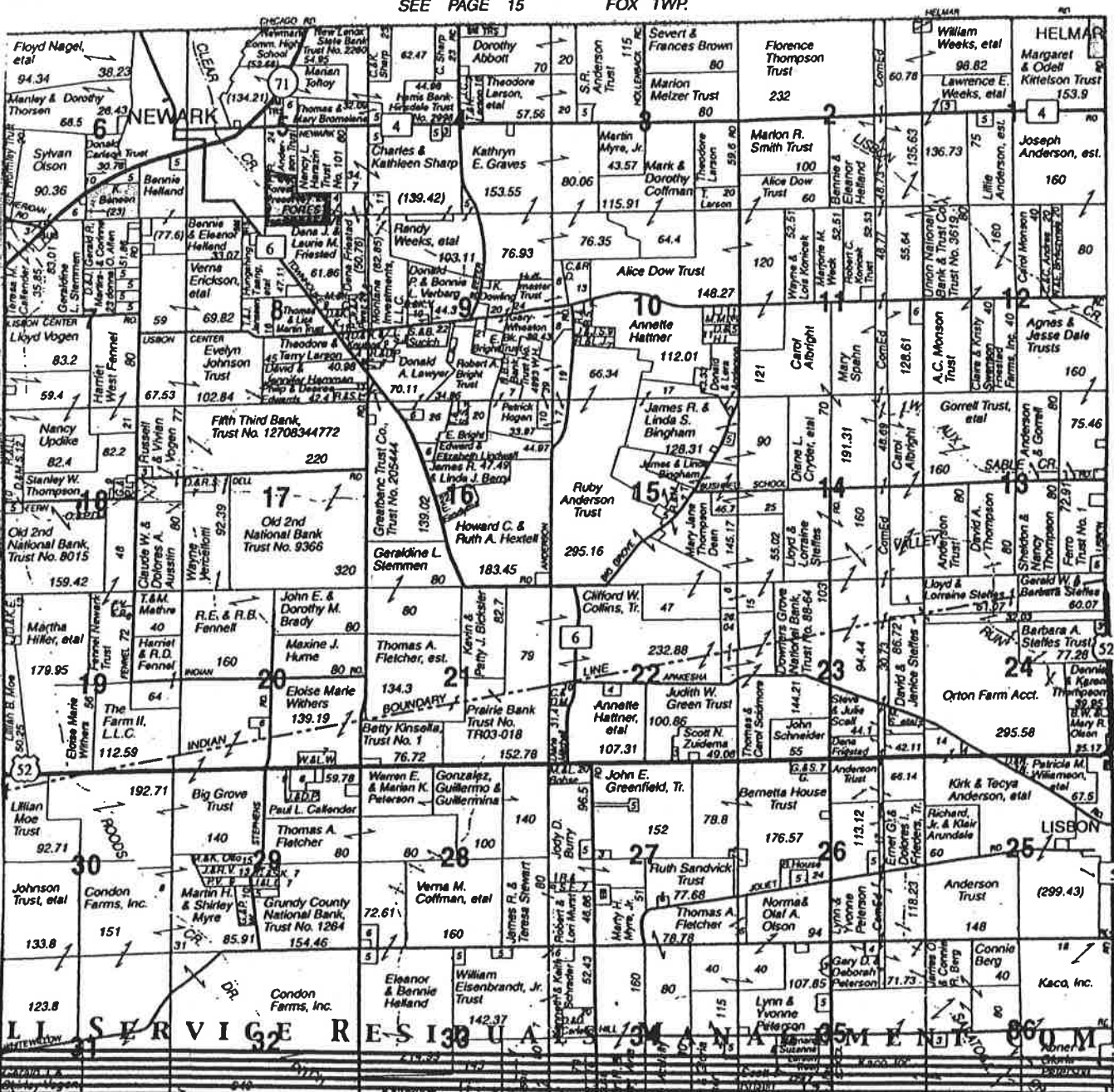
Bob Loftus
non-responsive

Field 19
23 acres
Kendall County
Big Grove Township
Section 6

Loftus 19

BIG GROVE T.35N.-R.6E.

SEE PAGE 15 FOX TWP.



SPREADING

SOIL SERIES

Bob Loftus
non-responsive

Field 19
23 acres
Kendall County
Big Grove Township
Section 6

SOIL SERIES	TEXTURE	% SLOPE	PERMEABILITY
Saybrook, 145B	SiL	2-5 %	0.6-2.0 in/hr
Proctor, 148A	SiL	0-2 %	0.6-2.0 in/hr
Brenton, 149A	SiL	0-2 %	0.6-2.0 in/hr
Drummer, 152A	SiCL	0-2 %	0.6-2.0 in/hr

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